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* State Facility Title V

Section I - Certification

| | Section Certification | | | |
|--|--|--|---|-----------------------------|
| | Certification | | | |
| I certify under penalty of law that this document and all atta assure that qualified personnel properly gather and evaluat gathering the information required to complete this applica penalties for submitting false information, including the pos | e the information submitted. Based on my ir tion, I believe the information is true, accura | iquiry of the person o ite, and complete. I a | or persons dire | ectly responsible for |
| Responsible Official Ron Kramer | | Title | Process | Manager |
| Signature | | Date | | |
| and the second s | rofessional Engineer Certification | on | | |
| I certify under penalty of law that have be considered attachments as they pertain to the product of engineering of fines and imprisonment for the product of the constant of | | information submitties for submitting fals | se information | , including the possibility |
| Professional Engineer | Wellet | NYS Lic | cense No. | 081403-1 |
| Signature Mail 12 | P HJ | Date | 3/3/ | 20 |
| Section | n引 Identification Inform | mation | | |
| | Type of Permit Action Requeste | | | |
| | ft Modification Administrative | | 100000000000000000000000000000000000000 | odification |
| _ Application for the construction of a ne | | es the construction | on of new e | mission unit(s) |
| | Facility Information | | | |
| Name Long Island Sterilization | | | | |
| Location Address 175 Wireless Blvd., Ha | auppauge, NY | | | |
| City / Town / ▼ Village | | | Zip | 11788 |
| Owner/ | Firm Information | | Busi | iness Taxpayer ID |
| Name Blossom dba Long Island Steriliza | tion | | 1 1 | 3 3 0 4 0 8 0 |
| Street Address 175 Wireless Blvd. | | | | |
| City Hauppauge | State/Province NY | Country USA | | Zip 11788 |
| Owner Classification: Federal State | e Municipal × Corpor | ation/Partnershi | ip I | ndividual |
| | Owner/Firm Contact Information | n | | |
| Name Ron Kramer | | | Phone 63 | 1-435-4711 |
| E-mail Address rkramer@busseinc.com | | | Fax 631-4 | 435-9403 |
| Affiliation Long Island Sterilization | | Title Pr | ocess Ma | anager |
| Street Address 175 Wireless Blvd. | | | | |
| _{City} Hauppauge | State/Province NY | Country USA | | _{Zip} 11788 |
| | Facility Contact Information | | | |
| Name Ron Kramer | | | Phone 63 | 1-435-4711 |
| E-mail Address rkramer@busseinc.com | 959 s 4 4 | | Fax 631-4 | 435-9403 |
| Affiliation Long Island Sterilization | The Co. | Title Pr | ocess Ma | nager |
| Street Address 175 Wireless Blvd. | . 7. 6. | | | |
| _{City} Hauppauge | State/Province NY | Country USA | | zip 11788 |



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| | | | | | Pro | ject Description | on | [| ☐ Continu | uation Sheet(s) | | | | |
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| | | | | Sec | tion III - | - Facility Inf | ormation | | | | | | | |
| | | | | | | lity Classificati | | | | | | | | |
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| | | SIC Cod | ue(s) | 1 | | | INA | ICS Code(s) | T | | | | | |
| | | | | | Fac | ility Description | | | 7 Continu | uation Sheet(s) | | | | |
| | | | | | | me, Description | <i></i> | | | addon oneed(s) | | | | |
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| | .1 . 6.1 | 1 | | • | | nents (Title V A | • • | • | | | | | | |
| applicat 8 of this compliat This f permit, For al facility v | one or more emission units at the facility are not in compliance with all applicable requirements. Yes No one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this opplication (the 'NO' box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on page of this form along with the compliance plan information required. For all emission units at the facility that are operating in ompliance with all applicable requirements, complete the following: This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the ermit, except those emission units referenced in the compliance plan portion of this application. For all emission units subject to any applicable requirements that will become effective during the term of the permit, this acility will meet such requirements on a timely basis. Compliance certification reports will be submitted at least once per year. Each report will certify compliance status with respect | | | | | | | | | | | | | |
| | | | | | | letermine the st | | , . | | · | | | | |
| | | | | Facil | lity Applic | able Federal R | equirements |] | ☐ Continu | uation Sheet(s) | | | | |
| Title | Туре | Part | S | ubpart | Section | Subdivision | Paragraph | Subparagraph | Clause | Subclause | | | | |
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| | | | | | Facility Sta | ate Only Requ | irements | [| ☐ Continu | uation Sheet(s) | | | | |
| Title | Туре | Part | S | ubpart | Section | Subdivision | Paragraph | Subparagraph | Clause | Subclause | | | | |
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Version 3 - 5/30/2019 2



| Facility Compliance Certification Manufacturer's Name/Model Number | 1 - 4 7 3 4 - | 0 0 7 4 3 | | | | | |
|--|---|------------------------|--------------------------|------------------------------|--------------------|---------------------------------|--|
| Title Type Part Subpart Section Subdivision Paragraph Subparagraph Clause Subclaus Applicable Federal Requirement State Only Requirement Subject to contaminant List: Emissions of the following contaminants are subject to contaminant specific requirements in this permittemission limits, control requirements or compliance monthing conditions). CAS No: 000075-21-8 Name: ETHYLENE OXIDE Work Practice Type Code Description Reference Test Method Process Material Reference Test Method Permitter Description Reference Test Method Manufacturer's Name/Model Number Description Manufacturer's Name/Model Number Description Averaging Method Description Code Description Code Description Averaging Method Description Code Description Code Description CAS Number Contaminant Name Contaminant Name Contaminant Name Reference Test Method Averaging Method Description Code Description Code Description CAS Number Contaminant Name Contaminant Name Reference Test Method Averaging Method Description Code Description Code Description Averaging Method Description Code Description Code Description CODE Description Code Description Code Description CODE Description Code Description Code Description CODE DESCRIPTION CODE SECTION CODE SECTION CODE DESCRIPTION CODE DESCRIPTION CODE SECTION C | masonhi escribio | Solid Same the | Facilit | · | ification | And the Committee | Continuation Sheet |
| Capping | | 1 | | | | 2.0 | |
| Applicable Federal Requirement State Only Requirement Work Practice Involving Specific Operations Compiliance Activity Description Ontaminant List: Templiance Activity Description Ontaminant List: Templiance Monitoring Involving Specific Operations Ontaminant List: Templiance Monitoring Conditions). CAS No. 000075-21-8 Name: ETHYLENE OXIDE Work Practice Type Code Tode Ontaminant Description Monitoring Process Material Type Code Operation Monitoring Prequency Averaging Method Operation Facility Emissions Summary Continuation Shee CAS Number CAS Number CONTINUATION ON O | | | opart Sect | ion Subdivision | Paragraph | Subparagraph | Clause Subclause |
| State Only Requirement Capping T5-21-8 | | | | | | | |
| Monitored Parameter Code Description | | | Capping | | | | |
| Work Practice Involving Specific Operations Ambient Air Monitoring Record Keeping/Maintenance Procedures | State Only Requi | rement | | | | Ethylene Ox | xide |
| Compliance Activity Description Contaminant List: missions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions). CAS No: 000075-21-8 Name: ETHYLENE OXIDE Work Practice Type Code | Mayla Danatina | James Librar Conneilia | | | | and Kanaina/Mai | atanana Daga adi wasa |
| Contaminant List: crisisions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions). CAS No: 000075-21-8 Name: ETHYLENE OXIDE Work Practice Type Code | Work Practice | involving specific | | | | ecord Keeping/Mair | iteriance Procedures |
| Monitored Parameter | Emissions of the follo compliance monitorin | g conditions). | | ninant specific requirem | nents in this pern | nit(emission limits, cor | ntrol requirements or |
| Limit | | Code | | | | Reference Te | st Method |
| Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements Code Description Code Description Facility Emissions Summary Continuation Shee CAS Number Contaminant Name Potential to Emit (tons/yr) Actual Emission (pounds/yr) 0NY075 - 00 - 5 PM-10 0.212 87.71 0NY750 - 02 - 5 PM-2.5 0.212 87.71 007446 - 09 - 5 Sulfur Dioxide 0.016 6.9 0NY210 - 00 - 0 Oxides of Nitrogen 2.79 1154.1 000630 - 08 - 0 Carbon Monoxide 2.34 969.4 007439 - 92 - 1 Lead (elemental) 1.39E-05 0.0058 0NY998 - 00 - 0 Total Volatile Organic Compounds 0.153 63.47 0NY750 - 00 - 0 Carbon Dioxide Equivalents 3345.58 1384925.8 000075 - 21-8 Ethylene Oxide 0.58 240 | Code | Monitor | | | No. | 1anufacturer's Nam | ie/Model Number |
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| Code Description Code Description Code Description Facility Emissions Summary Continuation Sheether State Summary CAS Number Contaminant Name Potential to Emit (tons/yr) Actual Emission Summary 0NY075 - 00 - 5 PM-10 0.212 87.71 0NY750 - 02 - 5 PM-2.5 0.212 87.71 007446 - 09 - 5 Sulfur Dioxide 0.016 6.9 0NY210 - 00 - 0 Oxides of Nitrogen 2.79 1154.1 000630 - 08 - 0 Carbon Monoxide 2.34 969.4 007439 - 92 - 1 Lead (elemental) 1.39E-05 0.0058 0NY998 - 00 - 0 Total Volatile Organic Compounds 0.153 63.47 0NY100 - 00 - 0 Total Hazardous Air Pollutants 0.58 240 0NY750 - 00 - 0 Carbon Dioxide Equivalents 3345.58 1384925.8 | | | | | | | |
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| CAS Number Contaminant Name Potential to Emit (tons/yr) Actual Emission (pounds/yr) 0NY075 - 00 - 5 PM-10 0.212 87.71 0NY750 - 02 - 5 PM-2.5 0.212 87.71 007446 - 09 - 5 Sulfur Dioxide 0.016 6.9 0NY210 - 00 - 0 Oxides of Nitrogen 2.79 1154.1 000630 - 08 - 0 Carbon Monoxide 2.34 969.4 007439 - 92 - 1 Lead (elemental) 1.39E-05 0.0058 0NY998 - 00 - 0 Total Volatile Organic Compounds 0.153 63.47 0NY100 - 00 - 0 Total Hazardous Air Pollutants 0.58 240 0NY750 - 00 - 0 Carbon Dioxide Equivalents 3345.58 1384925.8 000075-21-8 Ethylene Oxide 0.58 240 | Lode | Description | Code | Descrip | otion | Code | Description |
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| 000630 - 08 - 0 Carbon Monoxide 2.34 969.4 007439 - 92 - 1 Lead (elemental) 1.39E-05 0.0058 0NY998 - 00 - 0 Total Volatile Organic Compounds 0.153 63.47 0NY100 - 00 - 0 Total Hazardous Air Pollutants 0.58 240 0NY750 - 00 - 0 Carbon Dioxide Equivalents 3345.58 1384925.8 000075-21-8 Ethylene Oxide 0.58 240 | 007446 - 09 - 5 | | Sulfur D | Dioxide | | 0.016 | 6.9 |
| 007439 - 92 - 1 Lead (elemental) 1.39E-05 0.0058 0NY998 - 00 - 0 Total Volatile Organic Compounds 0.153 63.47 0NY100 - 00 - 0 Total Hazardous Air Pollutants 0.58 240 0NY750 - 00 - 0 Carbon Dioxide Equivalents 3345.58 1384925.8 000075-21-8 Ethylene Oxide 0.58 240 | 0NY210 - 00 - 0 | | Oxides of | Nitrogen | | 2.79 | 1154.1 |
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| 000075-21-8 Ethylene Oxide 0.58 240 | 0NY100 - 00 - 0 | | Total Hazardou | s Air Pollutants | | 0.58 | 240 |
| | 0NY750 - 00 - 0 | | Carbon Dioxid | e Equivalents | | 3345.58 | 1384925.8 |
| | 000075-21-8 | | Ethylene | e Oxide | | 0.58 | 240 |
| | | With the exception of | ethylene oxide, all othe | r emissions are from burning | g of natural gas. | | |
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Section III - Facility Information

| | Facility Compliance Certification (continuation) Rule Citation e Type Part Subpart Section Subdivision Paragraph Subparagraph Clause Subclause | | | | | | | | | | | | | | |
|-------------|---|-----------------|---------------|-------------|----------------|--------------|----------|-------------------|---|--------|--|--|--|--|--|
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| Title | Туре | Part | Subpart | n Parag | raph | Subparagraph | Clause | Subclause | | | | | | | |
| 6 | NYCRR | 201 | 1 | 4 | | | | | | | | | | | |
| ☐ Applicab | le Federal Re | equirement | □ Commine | CA | \S No. | | | Contaminant Nar | ne | | | | | | |
| ■ State On | ly Requirem | ent | ☐ Capping | | | | | | | | | | | | |
| | | | N | lonitorir | ng Informa | ition | | | | | | | | | |
| ☐ Continuo | ous Emission | Monitoring | |] Monitori | ing of Proces | s or Contro | l Device | e Parameters as a | Surrogat | :e | | | | | |
| ☐ Intermit | tent Emissior | n Testing | | | actice Involvi | | | | | | | | | | |
| ☐ Ambient | Air Monitor | ing | . [| Record K | (eeping/Mair | ntenance P | rocedur | es | | | | | | | |
| | | | | Des | cription | | | | | | | | | | |
| Unavoidal | ole Non-con | npliance and | l violations: | | | | | | | | | | | | |
| Onavoidai | JIC 14011 0011 | iipiiarioc aric | a violations. | | | | | | | 1 11 | | | | | |
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| Work Prac | rtice | | Process M | aterial | | | | | | | | | | | |
| Type | Co | da | | escription | | | | Reference Test | Method | | | | | | |
| Type | | uc | υ, | - Scription | | | | | | | | | | | |
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| Linus Entra | | | Parameter | | | 48/4/2014 | M | lanufacturer Nam | e/Model | No | | | | | |
| Code | | 100 100 | Description | ١ | | | | ionaractarer Nam | e, model | 140. | | | | | |
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| | | Limit | | | | | | Limit Units | | | | | | | |
| | Limit Limit Units Upper Lower Code Description | | | | | | | | | | | | | | |
| | Court | | | | | | | | | | | | | | |
| | | N4-411 | | | | | | 9 | • | | | | | | |
| | Averaging | | | | ing Frequen | ··· | | Reporting Req | | | | | | | |
| Code | D | escription | Code | 3 | Descripti | on | Coc | le D | escriptio | n | | | | | |
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Section III - Facility Information

| ning and the second | Facility Compliance Certification (continuation) Rule Citation | | | | | | | | | | | | | | |
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| Title Type Part | Subpart | Section | Subdivisio | n Paragrap | n Subparagraph | Clause | Subclause | | | | | | | | |
| 6 NYCRR 201 | 5 | | | | | | | | | | | | | | |
| ☐ Applicable Federal Requirement | П Сi | CA | AS No. | | Contaminant Na | me | | | | | | | | | |
| ■ State Only Requirement | ☐ Capping | | | | | | | | | | | | | | |
| 建杂类的现在分词 医多种性多种性多种 | M | onitorir | ng Informa | ition | 医检查性检查检查 | | | | | | | | | | |
| ☐ Continuous Emission Monitoring | | Monitori | ing of Proces | s or Control De | evice Parameters as | a Surrogat | te | | | | | | | | |
| ☐ Intermittent Emission Testing | | Work Pra | actice Involvi | ing Specific Op | erations | | | | | | | | | | |
| ☐ Ambient Air Monitoring | | Record K | (eeping/Mai | ntenance Proce | edures | | | | | | | | | | |
| | | Des | scription | | er er er er skiller et de skiller Er er | | | | | | | | | | |
| Emission Unit Definition The facility is authorized to perform regulated processes under this permit for: Emission Unit: E-00001 Emission Unit Description: A sterilization process consisting of (3) sterilization chambers and (1) aeration room. The (3) sterilization chambers are vented directly to (1) wet scrubber in series with (1) catalytic oxidizer. The aeration room is vented directly to the catalytic oxidizer. Building(s): M | | | | | | | | | | | | | | | |
| Work Practice Type Code | Process Ma | aterial escription | erioreacherasio Marchaeles Sylven | | Reference Tes | st Method | | | | | | | | | |
| Pa Code | arameter Description | 202 4 2 202 2 | ACTOR CONTROL | | Manufacturer Nar | me/Mode | l No. | | | | | | | | |
| | Descripcion | | | | | | | | | | | | | | |
| Limit | | | | | Limit Units | | | | | | | | | | |
| Upper | Lower | | Code | | Description | n | | | | | | | | | |
| | | | | | - | | | | | | | | | | |
| Averaging Method | | Monito | I ring Frequen | rv I | Reporting Re | quiremen | nts | | | | | | | | |
| Code Description | Code | | Descripti | - | —————————————————————————————————————— | Description | | | | | | | | | |
| Description | Code | | Sescripti | | | - D.C. PCIC | | | | | | | | | |



Continuation Sheet 3 of 14

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Section III - Facility Information

| | Facility Compliance Certification (continuation) Rule Citation | | | | | | | | | | | | | |
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| | itle Type Part Subpart Section Subdivision Paragraph Subparagraph Clause Subclause | | | | | | | | | | | | | |
| Title | Type | Part | Subpart | Section | Subdivisio | n Para | graph | Subparagraph | Clause | Subclause | | | | |
| 6 | NYCRR | 211 | 2 | | | | | | | | | | | |
| ☐ Applicab | le Federal R | equirement | П с | CA | S No. | | | Contaminant Na | me | | | | | |
| ■ State On | ly Requirem | ent | ☐ Capping | | | | | | | | | | | |
| | | 121111111111111111111111111111111111111 | M | lonitorir | ng Informa | tion | | | | | | | | |
| ☐ Continuo | ous Emission | Monitoring | | l Monitori | ng of Proces | s or Conti | ol Devi | e Parameters as a | Surroga | te | | | | |
| ☐ Intermit | tent Emissio | n Testing | | l Work Pra | actice Involvi | ng Specifi | ic Opera | tions | | | | | | |
| ☐ Ambient | Air Monitor | ring | | l Record K | eeping/Mair | ntenance | Procedu | ires | | | | | | |
| | | | | Des | cription | | | | | | | | | |
| comfortab limits, this deleteriou | Air Pollution Prohibited No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission imits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either allone or in combination with others. | | | | | | | | | | | | | |
| Work Pra | ctice | | Process Ma | aterial | | | | Reference Tes | t Mathad | | | | | |
| Type | Co | ode | D€ | escription | | | | Reference res | t Method | and the section | | | | |
| | | | | | | | | | | | | | | |
| | | Р | arameter Description | | | | ı | Manufacturer N ar | ne/Mode | l No. | | | | |
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Section IV - Emission Unit Information

| | | | | | Emission Unit Descript | tion | | ☐ Continu | uation Sheet(s) |
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Version 3 - 5/30/2019 4



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| Applicable Federal Requirement Emission Unit Emission Point Emission Point Emission Point Emission Source E-0001 S01 All 75-21-8 Ethylene Oxide Monitoring Information Continuous Emission Monitoring Information Continuous Emission Monitoring Information Continuous Emission Monitoring Information Continuous Emission Testing Work Practice Involving Specific Operations Record Keeping/Maintenance Procedures Compliance Activity Description Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission limitations: Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission intellations: Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission intellations: Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission intellations: Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission intellations: Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission reduction over the Room Vent Chamber Exhaust Vent > 0.10 TeV 99% emission per Memission per maximum mainfold to reduction over the Concentration control device 99% emission 99% emission 99% emission per year of ethylene oxide must meet the following emission reduction over the concentration control device 99% emission 9 | Title Ty | pe Par | t S | ubpart | Sec | | | | Paragraph | n Sub | paragrap | h I Clause | Suh | clause |
| Emission Unit Emission Process Emission Source CAS Number Contaminant Name E-00001 E0001 S01 All 75-21-8 Ethylene Oxide | 40 CF | R 63 | | 0 | 36 | 62 | | | 9 1 | | F-1-90, 4P | . cladse | 300 | ciause |
| Emission Unit Point Process Surce CAS Number Contaminant Name E-00001 E0001 S01 All 75-21-8 Ethylene Oxide **Total Information** Continuous Emission Monitoring Monitoring Intermittent Emission Testing Ambient Air Monitoring Intermittent Emission Testing Ambient Air Monitoring Intermittent Emission Testing Ambient Air Monitoring Record Keeping/Maintenance Procedures **Compliance Activity Description** Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission intriations: Existing and Sterilization Aration New Sources Chamber Veril Room Vent Chamber Exhaust Vent Point Py 99% emission 1 ppm maximum manifold to order or or order of the perind of th | Applicable F | | | | Stat | e Only | / Requ | irement | | | | Capping | L | |
| E-00001 E0001 S01 All 75-21-8 Ethylene Oxide Monitoring Information | Emission Uni | t I | l P | rocess | | | C/ | AS Number | | | Contam | | | |
| Continuous Emission Monitoring Monitoring of a Process or Control Device Parameters as a Surrogate Intermittent Emission Testing Work Practice Involving Specific Operations Ambient Air Monitoring Record Keeping/Maintenance Procedures | E 00001 | | | 001 | | | | 75.04.0 | | | | | | |
| Continuous Emission Monitoring Intermittent Emission Testing Work Practice Involving Specific Operations Record Keeping/Maintenance Procedures Compliance Activity Description Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission limitations: Existing and Sterilization Aeration New Sources Chamber Vent Room Vent Chamber Exhaust Vent > 10 TPY 99% emission 1 ppm maximum manifold to reduction outlet concentration control device or or greater eduction reduction Work Practice Process Material Reference Test Method Work Practice Description Monitored Parameter Code Description Limit Limit Units Limit Units Averaging Method Monitoring Frequency Reporting Requirements | E-00001 | E000 |) | 501 | | | | | | | Ethyle | ne Oxide | | |
| Intermittent Emission Testing Work Practice Involving Specific Operations Record Keeping/Maintenance Procedures Compliance Activity Description Emission Units using greater than 10 tons per year of ethylene oxide must meet the following Emission limitations: Emission Berlization Aeration New Sources Chamber Vent Room Vent Chamber Exhaust Vent > 10 TPY 98% emission in pm maximum manifold to reduction outlet concentration control device or or 99% emission or perfect of the process Material Type Code Code Description Reference Test Method Monitored Parameter Code Description Manufacturer's Name/Model Number Limit Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | Continuous | Emission M | onitoring | | | | | | | evice Par | amotors | ac a Curroga | +- | |
| Ambient Air Monitoring Compliance Activity Description Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission limitations. Sources Chamber Vent Room Vent Chamber Exhaust Vent > 10 TPY 99% emission 1 ppm maximum manifold to reduction outlet concentration control device or or 99% emission 99% emission reduction reduction Work Practice Type Code Monitored Parameter Code Description Monitored Parameter Code Description Limit Limit Limit Units Upper Lower Code Monitoring Frequency Reporting Requirements | | | | | Wo | rk Pra | ctice Ir | nvolving Sp | ecific Ope | rations | ameters | as a surroga | te | |
| Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission limitations: Existing and Sterilization Aeration New Sources Chamber Vent Room Vent Chamber Exhaust Vent > 10 TPY 99% emission 1 ppm maximum manifold to reduction outlet concentration control device or or or 10 general outlet concentration control device or or or 10 general outlet on reduction Work Practice Type Code Type Code Monitored Parameter Code Description Manufacturer's Name/Model Number Limit Limit Limit Units Upper Lower Code Monitoring Frequency Reporting Requirements | Ambient Air | Monitoring | | | Rec | ord Ke | eeping | /Maintenar | nce Proce | | | | | |
| emission limitations: Existing and Sterilization Aeration New Sources Chamber Vent Room Vent Chamber Exhaust Vent > 10 TPY 99% emission 1 ppm maximum manifold to reduction outlet concentration control device or or or 199% emission reduction Work Practice | | | | | | | | | iption | | | | | |
| Type Code Code Description Reference Test Method Monitored Parameter Code Description Manufacturer's Name/Model Number Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | emission limitations Existing and Steriliz New Sources Cham > 10 TPY 99% emis reduction outlet con- or or 99% emission 99% | ation Aeration ber Vent Room sion 1 ppm max centration contro | Vent Chambe | er Exhaust Vent | | st meet ti | he follow | ing | | | | | | |
| Monitored Parameter Code Description Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | | | | Process | | | | | | P. | eference | Tost Mothor | 4 | |
| Code Description Manufacturer's Name/Model Number Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | Type Code | Code | | | Desc | riptio | n | | | A | cicience | rest Methor | , | |
| Code Description Manufacturer's Name/Model Number Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | | | | 1.6 | | | | | | | | | | |
| Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | Code | | Monito | | | n | | | | Manufac | turer's N | ame/Model | Numb | er |
| Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | | | | | | | | | | | | | | |
| Averaging Method Monitoring Frequency Reporting Requirements | | Limit | | | | | | 12.36 | Limit | | | | | |
| C. L. State of the | Upper | | Lower | C | ode | | | | | Descript | tion | | | |
| C. L. State of the | Λω | eraging Mod | hod | | | | itoria | - Гоза | | | | | | |
| Description Code Description | | | | | Code | IVIOR | ntoring | | | Cor | | | | |
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Section IV - Emission Unit Information

| Emission | Emission | D | Emission | | | | Jnit Appli | | | | ments (co | ntinuati | on) |
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| Unit | Point | Process | Source | Title | Type | Part | Subpart | Section | Subdiv. | Parag. | Subparag. | Clause | Subcl. |
| E-00001 | E0001 | S01 | CX01 | 40 | CFR | 63 | 0 | 364 | е | | | | |
| E-00001 | E0001 | S01 | DS1 | 40 | CFR | 63 | 0 | 363 | b | 1 | iii | | |
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Continuation Sheet $\underline{5}$ of $\underline{14}$



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| Title Type Part Subpart Section Subdivision Paragraph Subparagraph Clause | Emission Unit Compliance Certification (continuation) Rule Citation | | | | | | | | | | | | |
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| 1 | Subclause | | | | | | | | | | | | |
| 40 CFR 63 O 363 b | | | | | | | | | | | | | |
| ☑ Applicable Federal Requirement ☐ State Only Requirement ☐ | ☐ Capping | | | | | | | | | | | | |
| Emission Unit Emission Point Process Emission Source CAS No. Contaminant Name | | | | | | | | | | | | | |
| E-00001 E0001 S01 CX01 75-21-8 Ethylene Oxide | | | | | | | | | | | | | |
| Monitoring Information | | | | | | | | | | | | | |
| ☐ Continuous Emission Monitoring ☐ Monitoring of Process or Control Device Parameters as a Surrogate | r Control Device Parameters as a Surrogate | | | | | | | | | | | | |
| ☐ Intermittent Emission Testing ☐ Work Practice Involving Specific Operations | | | | | | | | | | | | | |
| ☐ Ambient Air Monitoring ☐ Record Keeping/Maintenance Procedures | | | | | | | | | | | | | |
| Description | | | | | | | | | | | | | |
| Monitoring Description: As required by 40 CFR 63-O 363 (b)(4)(iii), the catalyst of the catalytic oxidizer shall be replaced at a minimum of once every (5) years. Monitoring Frequency: Once every five years Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2009. Subsequent reports are due every 12 calendar month(s). | | | | | | | | | | | | | |
| Work Practice Process Material Reference Test Method | | | | | | | | | | | | | |
| Type Code Description | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Parameter Manufacturer Name/Model Code Description | No. | | | | | | | | | | | | |
| Court | | | | | | | | | | | | | |
| Limit Units | | | | | | | | | | | | | |
| Upper Lower Code Description | | | | | | | | | | | | | |
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| Averaging Method Monitoring Frequency Reporting Requirements Code Description Code Description Code Description | | | | | | | | | | | | | |



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| Title | Type | Part | | al t | 1 | | ' | | Jubparagra | on Clau | 3C Subciduse | |
| 40 | CFR | 63 | 0 | | 363 | C | _ | 1 | | | | |
| ☑ Applicab | | | | | • | Requirement | | | | | ☐ Capping | |
| Emission U | nit Emissi | on Point | Process | Emis | sion Source | CAS No. | | | Contamin | ant Name | | |
| E-00001 | I EO | 001 | S01 | | CX01 | 75-21-8 | | | Ethylen | Oxide | | |
| | | | | | | ng Informatio | | | | | | |
| ☐ Continuo | ous Emissio | n Monitorii | ng | | | ing of Process o | | | | as a Surro | gate | |
| ☐ Intermit | tent Emissio | n Testing | | | | actice Involving | 160 165 | | | | | |
| ☐ Ambient | Air Monito | ring | | | ☐ Record I | Keeping/Mainte | na | nce Procedu | ıres | | | |
| | | | | | De | scription | | | | | | |
| temperatu Paramete Lower Per Monitoring Averaging VALUE - S Reporting Reports d The initial | re. r Monitoree mit Limit: 3 g Frequenc Method: N SEE MONI Requirem ue 30 days report is d | d: TEMPE 320 degre by: CONTI MINIMUM TORING ents: SEM s after the ue 7/30/20 | es Fahrenl NUOUS - NOT TO DESCRIPT II-ANNUAL reporting p | heit FALL ΓΙΟΝ LLY (Goerioo | _ BELOW S CALENDAR | | | | | | | |
| Work Pr | actice | | | Proc | ess Material | 100000 | | | Poforon | e Test Me | thad | |
| Тур | e | Code | | | Description | on | | 111111111111111111111111111111111111111 | Neieren | e rest ivit | .cnou | |
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| | | | Param | eter | | | | | NA mari da aki in | × Nama/s | Andal Na | |
| Code | | | | escrip | tion | harby feld | | | Manufactur | i wame/N | noder NO. | |
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| | | imit | | | | | | Limit U | nits | | | |
| Ur | Upper Lower Code Description | | | | | | | | | | | |
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| | Averagin | g Method | | | L Monito | oring Frequency | | | Reportir | g Require | ments | |
| Code | , werebin | Descriptio | n | - C | ode | Description | | C | ode | Descri | | |
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| 40 CFR 63 O 364 c 4 ☑ Applicable Federal Requirement ☐ State Only Requirement ☐ Emission Unit Emission Point Process Emission Source CAS No. Contaminant Name | ubclause |
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| 40 CFR 63 O 364 C 4 ☑ Applicable Federal Requirement ☐ State Only Requirement ☐ Emission Unit Emission Point Process Emission Source CAS No. Contaminant Name | |
| ☑ Applicable Federal Requirement | |
| Emission Unit Emission Point Process Emission Source CAS No. Contaminant Name | |
| | Capping |
| | |
| E-00001 E0001 S01 CX01 75-21-8 Ethylene Oxide | |
| Monitoring Information | |
| ☐ Continuous Emission Monitoring ☐ Monitoring of Process or Control Device Parameters as a Surrogate | |
| ☐ Intermittent Emission Testing ☐ Work Practice Involving Specific Operations | 1 |
| ☐ Ambient Air Monitoring ☐ Record Keeping/Maintenance Procedures | |
| Description | |
| catalytic oxidation temperature. The temperature monitor shall be calibrated twice each calendar year with a reference temperature monitor traceable to National Institute of Standards and Technology (NIST). Monitoring Frequency: CONTINUOUS Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 6 calendar month(s). | |
| Work Practice Process Material Reference Test Method | |
| Type Code Description | |
| Parameter | |
| Code Description Manufacturer Name/Model N | vo. |
| | |
| Limit Limit Units Upper Lower Code Description | |
| Section 1 | |
| Averaging Method Monitoring Frequency Reporting Requirements | |
| Code Description Code Description Code Description | |
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| Title | Туре | Part | Subp | art | Section | Subdivision | Para | agraph | Subparagraph | Clause | Subclause | | |
| 40 | CFR | 63 | 0 | | 364 | е | | | | | | | |
| ■ Applicable F | ederal Re | equiremen | t | | State Only R | Requirement | | | | | ☐ Capping | | |
| Emission Unit | Emissio | n Point | Process | Emiss | sion Source | CAS No. | | | Contaminant | Name | | | |
| E-00001 | E00 | 001 | S01 | (| CX01 | 75-21-8 | | | Ethylene O | xide | | | |
| | | | | | Monitorir | ng Informatio | on | | | | | | |
| ☐ Continuous | Emission | Monitorin | g | | ☐ Monitori | ing of Process o | r Cont | rol Devic | e Parameters as a | Surrogat | :e | | |
| ☐ Intermittent | Emission | n Testing | | | ☐ Work Pra | actice Involving | Specif | ic Opera | tions | | | | |
| ☐ Ambient Air | Monitori | ing | | | ⊠ Record K | Keeping/Mainte | nance | Procedu | res | | | | |
| | | | | | Des | scription | | | | | | | |
| ethylene oxid atmosphere a operator shal The owner or and maintain performance appendix B, t Reference Te Monitoring Fr Averaging Me MEAN) Reporting Re Reports due 3 The initial rep Subsequent r | after any la compute operator a monito specifica o measu est Methode equency ethod: 24 quirement and days a ort is due | control de e and recer will insta or consiste ation (PS) re ethyler od: (PS) 8 : HOURL' HOUR Dents: SEMI after the ree 7/30/200 | evice. The ord a 24-hall, calibratent with the 8 or 9 in 4 or 9 in 40 or 9 in | owne nour a e, ope e requ 10 CFI CFR ERAGI LY (C eriod. | er or verage dail erate, uirements o R part 60, part 60, ap E (ARITHM | of opendix B METIC | | | | | | | |
| Work Practi Type | | ode | | Proces | ss Material Description | n | | | Reference Te | st Metho | d | | |
| | | | Parame | | | | | | Manufacturer Na | me/Modi | el No | | |
| Code | | | De: | scriptio | on | | | | anaracturer Na | c, wou | | | |
| | Limit Limit Units Upper Lower Code Description Averaging Method Monitoring Frequency Reporting Requirements | | | | | | | | | | | | |
| Code | | escription | | Cod | | ing Frequency Description | | Co | Reporting Red | escriptio | | | |
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| | Emission Unit Compliance Certification (continuation) | | | | | | | | | | | | |
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| 40 | CFR | 63 | 0 | | 363 | b | 1 | | ii | | | | |
| | | Requirement | | | • | Requirement | | | | | ☐ Capping | | |
| Emission U | nit Emissi | on Point | Process | Emission | Source | CAS No. | | | Contaminant I | Name | | | |
| E-00001 | 1 E0 | 0001 | S01 | DS | 01 | 75-21-8 | | | Ethylene Ox | kicde | | | |
| | | | | | | ng Informatio | | | | | | | |
| | | n Monitoring | g | | | ring of Process o | | | | Surrogat | :e | | |
| | tent Emissic | _ | | | Work Pr | ractice Involving | Specific Op | eration | ns | , | | | |
| ☐ Ambient | Air Monito | ring | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Keeping/Mainte | nance Proc | edures | i | | 5 | | |
| | | | | | Des | scription | | | | | | | |
| scrubber li Parameter Upper Per Monitoring Averaging SEE MON Reporting Reports du The initial | iquor at a r r Monitored mit Limit: 6 g Frequenc Method: M IITORING I Requirema ue 30 days report is di | y: CONTIN | f once per volum TANK LINOUS - NOT TO IFION -ANNUALL eporting per 108. | week. LEVEL EXCEEI LY (CALI | D STAT ENDAR | ΓED VALUE - R) | | | | | | | |
| Work Pra | | Code | | Process N | Material escriptio | | | | Reference Te | st Metho | d | | |
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| Code | | | | cription | | | | Ma | anufacturer Nai | me/Mod | el No. | | |
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| Upr | Upper Lower Code Description | | | | | | | | | | | | |
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| | Averaging | Method | | | Manita | ring Frequency | | | Reporting Rec | nuiromon | +c | | |
| Code | | Description | | Code | IVIOTITO | Description | | Code | | escriptio | | | |
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| 6 | NYCRR | 201 | 5 | | | | | | | | | | |
| ☐ Applicable | | | | | | Requirement | | | | | ☐ Capping | | |
| Emission Un | it Emissio | n Point | Process | Emissio | n Source | CAS No. | | | Contaminant | Name | | | |
| E-00001 | E00 | 001 | S01 | A | All | 75-21-8 | | | Ethylene O | xide | | | |
| | | | 1000 | | | ng Informatio | | | | | | | |
| ☐ Continuo | us Emission | Monitoring | 3 | | l Monitor | ing of Process o | r Contro | ol Device Pa | rameters as a | Surrogat | e | | |
| ☐ Intermitte | ent Emission | n Testing | | | Work Pr | actice Involving | Specific | Operation | S | | | | |
| ☐ Ambient / | Air Monitor | ing | 2000 | | Record R | Keeping/Mainte | nance P | rocedures | | | | | |
| | | | | | Des | scription | | | | | | | |
| | The following emission points are included in this permit for the cited Emission Unit: Emission Unit: E-00001 Emission Point: E0001 Height (ft.): 50 Diameter (in.): 12 | | | | | | | | | | | | |
| Work Pra | ctice | | and the second | Process | Material | | | | | | | | |
| Туре | C | ode | | Ω | Descriptio | n | | | Reference Te | st Metho | a | | |
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| | | | Parame | eter | | | | | | . (0.4.) | l Ni | | |
| Code | | | Des | scription | | | | IVIa | nufacturer Na | me/Mode | ei No. | | |
| | | | | | | | | | | | | | |
| | Lir | nit | | | | | Li | imit Units | | | | | |
| Upp | | | wer | Coc | le | | | Descript | ion | | | | |
| | | | | | | | | | | | | | |
| | Averaging | Method | | | Monito | ring Frequency | | dina di la | Reporting Red | uiremen | ts | | |
| Code | | escription | | Code | | Description | | Code | | escriptio | | | |
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Section IV - Emission Unit Information

| | | | Emission | Unit Comp | olianc | e Certification | on (con | tinuati | ion) | | |
|------------|------------|------------|----------|-------------|---------|------------------|----------|----------|--------------------|------------|-----------|
| | | | | | | Citation | | | | | |
| Title | Туре | Par | t Subp | art Sec | tion | Subdivision | Paragr | aph | Subparagraph | Clause | Subclause |
| | | | | | | | | | | | |
| ☐ Applicab | le Federa | Requiren | nent | ☐ State (| Only R | equirement | | | | | ☐ Capping |
| Emission U | nit Emis | sion Point | Process | Emission So | ource | CAS No. | | | Contaminant | Name | |
| | | | | | | | | | | | |
| | | | | Mon | itorin | g Informatio | on | | | | |
| ☐ Continuo | ous Emissi | on Monito | oring | | | | | l Device | Parameters as a | Surrogat | е |
| ☐ Intermit | tent Emiss | ion Testin | g | □ Wo | ork Pra | actice Involving | Specific | Operatio | ons | | |
| ☐ Ambient | Air Monit | oring | | □ Re | cord K | eeping/Mainte | nance Pr | ocedure | es | | |
| | | | | | Des | cription | | | | | |
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Continuation Sheet ____ of ____



| | | | De | termina | ation | of Non- | Applicabi | lity (1 | itle V A | Applicat | ions O | nly) | Continua | tion Shee | et(s) |
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| Emission Source | | Use of Emission Reducti | on Credi | its | Continuation Sheet(s) |
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| | | Contaminant Emissions In | crease D | | |
| CAS Number | | Contaminant Name | | Project Emis | sion Potential (lbs/yr) |
| | | Statement of Comp | liance | | |
| All facilities und | der the ownership | o of this "owner/firm" are operating <u>in</u> | complian | nce with all applicable re | equirements and state |
| | | ce certification requirements under Se | ction 114 | (a)(3) of the Clean Air A | act Amendments of 1990, |
| or are meeting the | e schedule of a co | Source of Emission Reduction | Credit - | Facility | |
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New York State Department of Environmental Conservation



| Air Permit Application | STATE OF OPPORTUNITY Environmental Conservation |
|---|---|
| DEC ID | ' |
| Supporting Documentation and Attachments | |
| Required Supporting Documentation | Date of Document |
| ☐ List of Exempt Activities (attach form) | |
| ☐ Plot Plan | |
| ☐ Process Flow Diagram | |
| \square Methods Used to Determine Compliance (attach form) | |
| ☐ Emissions Calculations | |
| Optional Supporting Documentation | Date of Document |
| ☐ Air Quality Model | |
| ☐ Confidentiality Justification | |
| ☐ Ambient Air Quality Monitoring Plan or Reports | |
| □ Stack Test Protocol | |
| □ Stack Test Report | |
| ☐ Continuous Emissions Monitoring Plan | |
| ☐ Lowest Achievable Emission Rate (LAER) Demonstration | |
| ☐ Best Available Control Technology (BACT) Demonstration | |
| ☐ Reasonably Available Control Technology (RACT) Demonstration | |
| ☐ Toxic Impact Assessment (TIA) | |
| ☐ Environmental Rating Demonstration | |
| ☐ Operational Flexibility Protocol/Description of Alternate Operating Scenarios | |
| ☐ Title IV Permit Application | |
| ☐ Emission Reduction Credit (ERC) Quantification (attach form) | |
| ☐ Baseline Period Demonstration | |
| ☐ Use of Emission Reduction Credits (attach form) | |
| ☐ Analysis of Contemporaneous Emissions Increase/Decrease | |
| Other Supporting Documentation | Date of Document |
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Version 3 - 5/30/2019 11



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Version 1.1 3/4/2015 Sheet _____ of ____



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Version 1.1 3/4/2015 Sheet _____ of ____



DEC ID1 - 4 7 3 4 - 0 0 7 4 3

List of Exempt Activities

Instructions

Applicants for Title V facility permits must provide a listing of each exempt activity, as described in 6 NYCRR Part 201-3.2(c), that is currently operated at the facility. This form provides a means to fulfill this requirement.

In order to complete this form, enter the number and building location of each exempt activity. Building IDs used on this form should match those used in the Title V permit application. If a listed activity is not operated at the facility, leave the corresponding information blank.

| | Combustion | | |
|--------------------------------|--|----------------------------|----------------------|
| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
| (1) | Stationary or portable combustion installations where the furnace has a maximum heat input capacity less than 10 mmBtu/hr burning fuels other than coal or wood; or a maximum heat input capacity of less than 1 mmBtu/hr burning coal or wood. This activity does not include combustion installations burning any material classified as solid waste, as defined in 6 NYCRR Part 360, or waste oil, as defined in 6 NYCRR Subpart 225-2. | 3 | M |
| (2) | Space heaters burning waste oil at automotive service facilities, as defined in 6 NYCRR Subpart 225-2, generated on-site or at a facility under common control, alone or in conjunction with used oil generated by a do-it-yourself oil changer as defined in 6 NYCRR Subpart 374-2. | | |
| (3)(i) | Stationary or portable internal combustion engines that are liquid or gaseous fuel powered and located within the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury, and have a maximum mechanical power rating of less than 200 brake horsepower. | | |
| (3)(ii) | Stationary or portable internal combustion engines that are liquid or gaseous fuel powered and located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury, and have a maximum mechanical power rating of less than 400 brake horsepower. | | |
| (3)(iii) | Stationary or portable internal combustion engines that are gasoline powered and have a maximum mechanical power rating of less than 50 brake horsepower. | | |
| (4) | Reserved. | | |
| (5) | Gas turbines with a heat input at peak load less then 10 mmBtu/hour | | |



| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
|--------------------------------|---|----------------------------|----------------------|
| (6) | Emergency power generating stationary internal combustion engines, as defined in 6 NYCRR Part 200.1(cq), and engine test cells at engine manufacturing facilities that are utilized for research and development, reliability performance testing, or quality assurance performance testing. Stationary internal combustion engines used for peak shaving and/or demand response programs are not exempt. | | |
| | Combustion Related | | Marine participation |
| (7) | Non-contact water cooling towers and water treatment systems for process cooling water and other water containers designed to cool, store or otherwise handle water that has not been in direct contact with gaseous or liquid process streams. | 1 | Moutside |
| | Agricultural Agricultural | 1357 | |
| (8) | Feed and grain milling, cleaning, conveying, drying and storage operations including grain storage silos, where such silos exhaust to an appropriate emissions control device, excluding grain terminal elevators with permanent storage capacities over 2.5 million U.S. bushels, and grain storage elevators with capacities above one million bushels. | | |
| (9) | Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment. | | |
| a description | Commercial - Food Service Industries | | |
| (10) | Flour silos at bakeries, provided all such silos are exhausted through an appropriate emission control device. | | |
| (11) | Emissions from flavorings added to a food product where such flavors are manually added to the product. | | |
| | Commercial - Graphic Arts | 11111 | 1255 |
| (12) | Screen printing inks/coatings or adhesives which are applied by a hand-held squeegee. A hand-held squeegee is one that is not propelled though the use of mechanical conveyance and is not an integral part of the screen printing process. | | |
| (13) | Graphic arts processes at facilities located outside the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury whose facility-wide total emissions of volatile organic compounds from inks, coatings, adhesives, fountain solutions and cleaning solutions are less than three tons during any 12-month period. | | |



| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
|--------------------------------|---|----------------------------|----------------------|
| (14) | Graphic label and/or box labeling operations where the inks are applied by stamping or rolling. | | |
| (15) | Graphic arts processes which are specifically exempted from regulation under 6 NYCRR Part 234, with respect to emissions of volatile organic compounds which are not given an A rating as described in 6 NYCRR Part 212. | | |
| | Commercial - Other | | |
| (16) | Gasoline dispensing sites registered with the department pursuant to 6 NYCRR Part 612. | | |
| (17) | Surface coating and related activities at facilities which use less than 25 gallons per month of total coating materials, or with actual volatile organic compound emissions of 1,000 pounds or less from coating materials in any 12-month period. Coating materials include all paints and paint components, other materials mixed with paints prior to application, and cleaning solvents, combined. This exemption is subject to the following: | | |
| | (i) The facility is located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury; and (ii) All abrasive cleaning and surface coating operations are performed in an enclosed building where such operations are exhausted into appropriate emission control devices. | | |
| (18) | Abrasive cleaning operations which exhaust to an appropriate emission control device. | | |
| (19) | Ultraviolet curing operations. | | |
| | Municipal/Public Health Related | | Lease 3 |
| (20) | Landfill gas ventilating systems at landfills with design capacities less than 2.5 million megagrams (3.3 million tons) and 2.5 million cubic meters (2.75 million cubic yards), where the systems are vented directly to the atmosphere, and the ventilating system has been required by, and is operating under, the conditions of a valid 6 NYCRR Part 360 permit, or order on consent. | | |
| Daysaga | Storage Vessels | | |
| (21) | Distillate fuel oil, residual fuel oil, and liquid asphalt storage tanks with storage capacities below 300,000 barrels. | | |
| 2/14/2014 | 1 | | 200 3 of 6 |



| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
|--------------------------------|--|----------------------------|----------------------|
| (22) | Pressurized fixed roof tanks which are capable of maintaining a working pressure at all times to prevent emissions of volatile organic compounds to the outdoor atmosphere. | | |
| (23) | External floating roof tanks which are of welded construction and are equipped with a metallic-type shoe primary seal and a secondary seal from the top of the shoe seal to the tank wall. | | |
| | External floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure less than 4.0 psi (27.6 kPa), are of welded construction and are equipped with one of the following: | | |
| () | (i) a metallic-type shoe seal; | | |
| (24) | (ii) a liquid-mounted foam seal; | | |
| | (iii) a liquid-mounted liquid-filled type seal; or | | |
| | (iv) equivalent control equipment or device. | | |
| (25) | Storage tanks, including petroleum liquid storage tanks as defined in 6 NYCRR Part 229, with capacities less than 10,000 gallons, except those subject to 6 NYCRR Part 229 or Part 233. | | |
| (26) | Horizontal petroleum or volatile organic liquid storage tanks. | | |
| (27) | Storage silos storing solid materials, provided all such silos are exhausted through an appropriate emission control device. This exemption does not include raw material, clinker, or finished product storage silos at Portland cement plants. | | |
| - The engine | Industrial | | |
| (28) | Processing equipment at existing sand and gravel and stone crushing plants which were installed or constructed before August 31, 1983, where water is used for operations such as wet conveying, separating, and washing. This exemption does not include processing equipment at existing sand and gravel and stone crushing plants where water is used for dust suppression. | | |
| (29)(i) | Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are a permanent or fixed installation with a maximum rated processing capacity of 25 tons of minerals per hour or less. | | |
| 2/14/2014 | | | |



| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
|--------------------------------|---|----------------------------|----------------------|
| (29)(ii) | Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are a portable emission source with a maximum rated processing capacity of 150 tons of minerals per hour or less. | | |
| (29)(iii) | Sand and gravel processing or crushed stone processing lines at a non-metallic mineral processing facility that are used exclusively to screen minerals at a facility where no crushing or grinding takes place. | | |
| (30) | Reserved. | | |
| (31) | Surface coating operations which are specifically exempted from regulation under 6 NYCRR Part 228, with respect to emissions of volatile organic compounds which are not given an A rating pursuant to 6 NYCRR Part 212. | | |
| (32) | Pharmaceutical tablet branding operations. | | |
| (33) | Thermal packaging operations, including, but not limited to, therimage labeling, blister packing, shrink wrapping, shrink banding, and carton gluing. | | |
| (34) | Powder coating operations. | | |
| (35) | All tumblers used for the cleaning and/or deburring of metal products without abrasive blasting. | | |
| (36) | Presses used exclusively for molding or extruding plastics except where halogenated carbon compounds or hydrocarbon solvents are used as foaming agents. | | = |
| (37) | Concrete batch plants where the cement weigh hopper and all bulk storage silos are exhausted through fabric filters, and the batch drop point is controlled by a shroud or other emission control device. | | |
| (38) | Cement storage operations not located at Portland cement plants where materials are transported by screw or bucket conveyors. | | |
| (39)(i) | Cold cleaning degreasers with an open surface area of 11 square feet or less and an internal volume of 93 gallons or less or, having an organic solvent loss of 3 gallons per day or less. | | |
| 39(ii) | Cold cleaning degreasers that use a solvent with a VOC content or five percent or less by weight, unless subject to the requirements of 40 CFR 63 Subpart T. | | |



| Rule Citation 201-3.2(c) | Description | Number of Activities | Building Location |
|--------------------------------|---|----------------------------|--|
| (39)(iii) | Conveyorized degreasers with an air/vapor interface smaller than 22 square feet (2 square meters), unless subject to the requirements of 40 CFR 63 Subpart T. | | |
| (39)(iv) | Open-top vapor degreasers with an open-top area smaller than 11 square feet (1 square meter), unless subject to the requirements of 40 CFR 63 Subpart T. | | |
| | Miscellaneous | | |
| (40) | Ventilating and exhaust systems for laboratory operations. Laboratory operations do not include processes having a primary purpose to produce commercial quantities of materials. | | TO TO LOS LOS LOS LOS LAS LAS LAS LAS LAS LAS LAS LAS LAS LA |
| (41) | Exhaust or ventilating systems for the melting of gold, silver, platinum and other precious metals. | | |
| (42) | Exhaust systems for paint mixing, transfer, filling or sampling and/or paint storage rooms or cabinets, provided the paints stored within these locations are stored in closed containers when not in use. | | |
| (43) | Exhaust systems for solvent transfer, filling or sampling, and/or solvent storage rooms provided the solvent stored within these locations are stored in containers when not in use. | | |
| (44) | Research and development activities, including both stand-alone and activities within a major facility, until such time as the administrator completes a rule making to determine how the permitting program should be structured for these activities. | | |
| (45) | The application of odor counteractants and/or neutralizers. | | |
| (46) | Hydrogen fuel cells. | | |
| (47) | Dry cleaning equipment that uses only water-based cleaning processes or those using liquid carbon dioxide. | | |
| (48) | Manure spreading, handling and storage at farms and agricultural facilities. | | |

| TPY | 0.58 TPY | ETO Emissions | PTE | | 0.12 Tons/year | 0.12 | ETO Emissions |
|------------------|----------|---------------|--------------|--------------------------|--------------------------|---------------------|--------------------------|
| | | | | | 240 lbs/year | 240 | Actual |
| | | | | | lbs/hr. | 0.028571429 lbs/hr. | |
| | | | | (based on Stack Test) | | | |
| 1156 lbs/year | 1156 | ETO Emissions | | Actual RE is 99.9% | | | |
| | | | | * 99% RE is conservative | | | |
| 3.17 lbs/day | 3.17 | ETO Emissions | | | | | |
| | | | | Wet Scrubber/Oxidizer | | | |
| | | 99% | Total RE* | Pollution Control System | | | |
| 57.816 Tons/year | 57.816 | | | | | | |
| 115632 lbs/year | 115632 | | | | 12 Tons/year | 12 | |
| 317 lbs/day | 317 | Total ETO | | <i>S</i> | 24,000 lbs/year (2018CY) | 24,000 1 | Actual ETO |
| | | | | | | | |
| | 1.10 | 10% Factor | | | | | |
| | 288 | Per Day | | | | | |
| | | | | | | | |
| | 144 | 2 | 72 | 12 pallets/load | operational | ST#2 | Sterilization Chamber #2 |
| | 144 | 2 | 72 | 12 pallets/load | operational | ST#1 | Sterilization Chamber #1 |
| | [lbs] | [per day] | [lbs] | [per Batch] | | | |
| | ETO | Load | ETO Charging | Capacity | Status | a, | Equipment |

Boiler Potential to Emit

| Substance PM-10 PM-2.5 SO2 NOx CO Pb VOC HAPS CO2 | Boiler Capacity Hourly Maximum Natural Gas Usage Annual Maximum Natural Gas Usage |
|--|---|
| AP42 Factor Boiler (lb/MMSCF) (lb/yr) 7.6 336.0 7.6 336.0 0.6 26.53 100 4421 84 3714 0.0005 0.022 5.5 243.2 0 | |
| PTE 161667 161667 111842 186404 136579 110932 102522 0 236.85 | 5.12 MMBTU/hr 5044.33498 Cubic feet/hr. 44218640.4 Cubic feet/ye 44.2186404 MMCF |
| Approximate 2018 Total PTE Emissions (lb/yr) 87.711967 423.7736341 87.711967 423.7736341 6.924629 33.45581322 1154.1048 5575.968869 969.44806 4683.81385 0.0057705 0.027879844 63.475766 306.6782878 0 1384925.8 6691162.643 | 5.12 MMBTU/hr 5044.33498 Cubic feet/hr. 44218640.4 Cubic feet/year 44.2186404 MMCF |
| | ٦ |
| Approximate Total PTE (tons/yr) 0.211886817 0.211886817 0.016727907 2.787984435 2.341906925 1.39399E-05 0.153339144 0 3345.581322 | |
| | 2018 Total Gas Usage 119349 therm 11.54105 MMCF |

New York State Permit Annual Compliance Demonstration Report

DECID: 1473400743

PERMIT NUMBER 1-4734-00743/00006

Federally Enforceable Conditions

| Condition | Condition | Applicable | Permit | Synopsis of | Methods used to | Type of | Deviations | Compliance Condition | Separate Report | Separate Report |
|-----------|-----------|----------------|----------|---|---|--------------|------------|----------------------|-----------------|-------------------|
| Number | MOD # *** | Requirement | Level | Requirement | Determine Compliance | Compliance * | Y/N | N/A ExplanationText | Description | Date (mm/dd/yyyy) |
| A | | 6NYCRR 200-5 | FACILITY | Sealing The Commissioner may seal an air contamination source to prevent its operation if compliance with 6NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the asse of the violation. Sealing means habeling or tagging a source to notify any person that the operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with suck source, and includes, but is not limited to, botting, chaining or wiring shut control panels, are pretures or conduits associated with such source. No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicableto such modification. Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section. | No instances occurred where this had to be invoked. | Continuous | N | N/A | N/A | N/A |
| В | | 6NYCRR 200-6 | FACILITY | Acceptable Ambient Air Quality Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required. | No instances of cause to invoke this requirement occurred. | Continuous | N | N/A | N/A | N/A |
| С | | 6NYCRR 200-7 | FACILITY | Maintenance of Equipment who owns or pertate an air contamination source which is equipped with an emission control wive shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively. | Record Keeping / Maintenance Procedures. Inspection of records indicates compliance. | Continuous | N | N/A | N/A | N/A |
| D | | 6NYCRR 201-1.2 | | Unpermitted Emission Sources If an existing requirements of 6NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply: (a) The owner and/or operator has apply for a permit for such emission source or register the facility in accordance with the provisions of Part 2-01. (b) The amission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities. | NA | Continuous | N | N/A | N/A | N/A |
| E | | 6NYCRR 201-1.5 | PACILITY | Emergency Defense constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York Nate. (a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporameous operating logs, or other relevant evidence that: (1) An emergency occurred and that the facility owner and/or operator can identify the causa(s) of the emergency; (2) The equipment at the permitted facility causing the emergency was at the time being properly operated; (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to militaget emissions, and corrective actions taken. (b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof. (c) This provision is in addition to any emergency or upset provision contained in any applicable requirement. | No instances occurred where this had to be invoked. | Continuous | N | N/A | N/A | N/A |
| F | | 6NYCRR 201-1.7 | FACILITY | Recycling and Salvage Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6NYCRR. | N/A Oxidizer assures destruction. | Continuous | N | N/A | N/A | N/A |
| G | | 6NYCRR 201-1.8 | FACILITY | Prohibition of Reintroduction of Collected Contaminants to the air No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere. | N/A Oxidizer assures destruction. | Continuous | N | N/A | N/A | N/A |

| ч | 6NYCRR 201-3.2(a) | EACH ITY | T | N/A | Continuous | N | N/A | N/A | N/A |
|---|---------------------------|----------|--|---|------------|--------------------------|-----|-----|-----|
| | | | Proof of Eligibility for Sources Defined as Exempt Activities - 6NYCRR 201-3.2(a) The owner and/or operator of an emission source or unit that is eligible to be exempt may be required to certify that it operates within the specific criteria described in this Subpart 201-3. The owner or operator of any such emission source must maintain all required records notice for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted excess to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law. | | | | | SVA | |
| | 6NYCRR 201-3.3(a) | | Proof of Eligibility for Sources Defined as Trivial Activities - 6NYCRR 201-3.3(a) The owner and/or operator of an emission source or unit that is listed as being trivial in 6NYCRR Part 201 may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law. | N/A | Continuous | N | N/A | N/A | N/A |
| J | 6NYCRR 202-1.1 | | Required Emissions Tests An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating pernit. Notification and acceptable procedures are specified in 6YVCRR Subpart 202-1. | Testing Performed in 2019. Reports being prepared. | Continuous | N | N/A | N/A | N/A |
| K | 6NYCRR211.3 | FACILITY | by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity. | Inspection of records indicates compliance. | Continuous | N | N/A | N/A | N/A |
| L | 6NYCRR 215-2 | FACILITY | Open Fires - Prohibitions Except as allowed by Section 215.3 of 6NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire. | No records of open burns. | Continuous | N | N/A | N/A | N/A |
| М | ECL 19-0305 | FACILITY | permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department any have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compliation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person. | No instances of cause to invoke this requirement occurred. | Continuous | N | N/A | N/A | N/A |
| N | 40 CFR 70.6(b) | FACILITY | reterrany Emorceanne Requirements and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to omit, are reforecable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations. | No instances of cause to invoke this requirement occurred. | Continuous | N | N/A | N/A | N/A |
| 1 | 40CFR63.362, Subpart O | E-00001 | Facilities Using >10 Tons Per Year of Ethytene Oxide Effective between the dates of 04/16/2008 and Permit Expiration Date Emission Units using greater than 10 tons per year of ethylene oxide must meet the following emission limitations: Existing and Sterilization Aeration New Sources Chamber Vett Room Vent Chamber Exhaust Vent > 10 TPY 99% emission 1 ppm manifold to control maximum outlet device concentration or or 99% emission reduction 99% emission reduction | Examination of records indicates compliance. Note during stack testing on 103119, a reading in excess was noticed. Corrective measures being taken. | Continuous | Yes. See Column F entry. | N/A | N/A | N/A |

| 2 | 40CFR63.363(b), Subpart O | E-00001 | Compliance Demonstration Effective between the dates of 04/16/2008 and Permit Expiration Date Emission Unit: E-00001 Emission Point: E0001 Process: S01 Emission Point: E0001 Regulated Contaminant(s): CAS No. 000075-2:1-8 ETHYLENE OXIDE Compliance Demonstration shall include the following monitoring: Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description: As required by 40 CFR 63-O 363 (b)/4)(iii), the catalyst of the catalytic oxidizer shall be replaced at a minimum of once every (5) years. Monitoring Frequency: Once every five years Reporting Requirements: ANNUALLY (CALEXDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2009. Subsequent reports are due every 12 calendar month(s). | Examination of records indicates compliance. | Continuous | No | N/A | N/A | N/A |
|---|----------------------------------|---------|---|--|------------|----|-----|-----|-----|
| 3 | 40CFR63.363 (c)(1), Subpart O | | Compliance Demonstration Effective between the dates of 04/16/2008 and Permit Expiration Date Emission Unit = 0001 Emission From the 10001 Emission Source: 0CX01 Regulated Contaminant(s): CAS No. 000075-21-8 ETHYLENE OXIDE CAS No. 000075-21-8 ETHYLENE OXIDE Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE Monitoring Description: The ctabytic oxidizer shall be operated no lower than the manufacturer's recommended minimum operating temperature. Parameter Monitorict. TEMPERATURE Lower Permit Limit: 320 degrees Fahrenheit Monitoring Frequency: CONTINUOUS Averaging Method: MINMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 6 calendar month(s). | Examination of records indicates compliance. | | No | N/A | N/A | N/A |
| 4 | 40CFR63.363 (c)(3), Subpart O | | Compliance Demonstration Effective between the dates of 04/16/2008 and Permit Expiration Date Emission Unit: E-00001 Emission Point: E0001 Process: S01 Emission Point: E0001 Regulated Contaminant(s): CAS No: 000075-21-8 ETHYLENE OXIDE COmpliance Demonstration shall include the following monitoring: Monitoring Type: INTERMITTENT EMISSION TESTING Monitoring Description: The facility shall conduct an emissions stack test on the catalytic oxidizer to determine the efficiency of the control device. Parameter Monitored: DESTRUCTION EFFICIENCY Lower Permit Limit: 99 percent reduction Reference Test Method: Reference Method 18 or 25A Monitoring Tengeuncy: Once every five years Averaging Method: MINIMIM NOT TO FALL BELOW STATED VALUE - SEE MONTTORING DESCRIPTION Reporting Requirements: ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 1/30/2009. | Examination of records indicates compliance. | Continuous | N | N/A | N/A | N/A |
| s | 40CFR63.364 (d)(4), Subpart O | | Compliance Demonstration Effective between the dates of 04/16/2008 and Permit Expiration Date Emission Unit = 04001 Emission Foint = 04001 Emission Foint = 04001 Emission Source: 0CX01 Regulated Contaminant(s): CAS No 000075-21-8 ETHYLENE OXIDE COmpliance Demonstration shall include the following monitoring: Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description: The ficility shall operate and maintain a temperature monitor accurate to within ±5.6 °C (±10 °F) to measure the catalytic oxidation temperature. The temperature monitor shall be calibrated twice each calendar year with a reference temperature monitor traceable to National Institute of Standards and Technology (NIST). Monitoring Frequency: CONTINUOUS Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 6 calendar month(s). | Examination of records indicates compliance. | Continuous | N | N/A | N/A | N/A |

| 6 | | | E-00001 | Compliance Demonstration | Examination of records indicates | | | | | |
|---|---|---------------------|---------|---|----------------------------------|------------|---|-----|-----|-----|
| | | Subpart O | | Effective between the dates of 04/16/2008 and Permit Expiration Date | compliance. | | | | | |
| | | · · | | Emission Unit: E-00001 Emission Point: E0001 | _ | | | | | |
| | | | | Process: S01 Emission Source: 0CX01 | | | | | | |
| | | | | Regulated Contaminant(s): | | | | | | |
| | | | | CAS No: 000075-21-8 ETHYLENE OXIDE | | | | | | |
| | | | | Compliance Demonstration shall include the following monitoring: | | | | | | |
| | | | | Compliance Demonstration shall include the following monitoring. | | | | | | |
| | | | | M ' T DECORD PERMACAL INTENTION PROCEDURES | | | | | | |
| | | | | Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES | | | | | | |
| | | | | Monitoring Description: | | | | | | |
| | | | | The facility shall measure and record once per hour the ethylene oxide concentration at the | | | | | | |
| | | | | outlet to the atmosphere after any control device. The owner or operator shall compute and | | | | | | |
| | | | | record a 24-hour average daily. The owner or operator will install, calibrate, operate, | | | | | | |
| | | | | and maintain a monitor consistent with the requirements of performance specification (PS) 8 or | | | | | | |
| | | | | 9 in 40 CFR part 60, appendix B, to measure ethylene oxide. | | | | | | |
| | | | | | | | | | | |
| | | | | Reference Test Method: (PS) 8 or 9 in 40 CFR part 60, appendix B Monitoring Frequency: | | | | | | |
| | | | | HOURLY | | | | | | |
| | | | | Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC MEAN) | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the | | | | | | |
| | 1 | | 1 | reporting period. | | 1 | 1 | l | | |
| | | | | The initial report is due 7/30/2008. | | | | | | |
| | | | | | | | | | | |
| | | | | Subsequent reports are due every 6 calendar month(s). | | | | | | |
| | | | | | | | | | | |
| 7 | | 40CFR63.363 | E-00001 | Compliance Demonstration | Examination of records indicates | Continuous | N | N/A | N/A | N/A |
| | | (b)(1)(ii), Subpart | | Effective between the dates of 04/16/2008 and Permit Expiration Date | compliance. | | | | | |
| | | 0 | | Emission Unit: E-00001 Emission Point: E0001 | _ | | | | | |
| | | | | Process: S01 Emission Source: 0CX01 | | | | | | |
| | | | | Regulated Contaminant(s): | | | | | | |
| | | | | CAS No: 000075-21-8 ETHYLENE OXIDE | | | | | | |
| | | | | Compliance Demonstration shall include the following monitoring: | | | | | | |
| | | | | | | | | | | |
| | | | | Monitoring Type: MONITORING OF PROCESS OR CONTROL | | | | | | |
| | | | | Similaring Type: Stort Form to of Treocass on Contract | | | | | | |
| | | | | DEVICE PARAMETERS AS SURROGATE | | | | | | |
| | | | | Monitoring Description: | | | | | | |
| | | | | The maximum liquor tank level in the wet scrubber shall be set by the manufacturer's | | | | | | |
| | | | | recommended operating limit and measured by an in-tank sensor. The facility shall monitor, | | | | | | |
| | 1 | | 1 | | | 1 | 1 | l | | |
| 1 | 1 | 1 | 1 | measure, and record the liquid level of the scrubber liquor at a minimum of once per week. | | ĺ | l | I | | |
| | 1 | 1 | 1 | n | | 1 | 1 | l | | |
| 1 | 1 | 1 | 1 | Parameter Monitored: MAXIMUM TANK LEVEL Upper Permit Limit: 68 inches | | ĺ | l | I | | |
| | 1 | | 1 | Monitoring Frequency: CONTINUOUS | | 1 | 1 | l | | |
| 1 | | | 1 | Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE | 1 | 1 | l | I | | |
| 1 | | | | | | | | | | |
| | | | | MONITORING DESCRIPTION | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. | | | | | | |

^{*} Type of Compliance is Continuous, Intermittent or the condition is Non Applicable (N/A) for the reporting period *** Enter only if the condition has been modified (i.e., the numbering of the condition is 1-x, 2-y, etc)

State Enforceable Conditions

| Condition | Condition | Applicable | Permit | Synopsis of | Methods used to | Type of | Deviations | ComplianceCondition | Separate Report | Separate Report |
|-----------|-----------|-------------|----------|---|----------------------|--------------|------------|---------------------|-----------------|-------------------|
| | | | | | | | | | | |
| | | | | | | | | | | |
| Number | MOD # *** | Requirement | Level | Requirement | Determine Compliance | Compliance * | Y/N | NAExplanationText | Description | Date (mm/dd/yyyy) |
| A | | 6NYCRR 201- | FACILITY | Public Access to Recordkeeping for Facilities With State Facility Permits | N/A | Continuous | N | N/A | N/A | N/A |
| | | 1.10(a) | | Where facility owners and/or operators keep records pursuant to compliance with the | | | | | | |
| | | | | requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 | | | | | | |
| | | | | NYCRR Subpart 201-7, the Department will make such records available to the public upon | | | | | | |
| | | | | request in accordance with 6 NYCRR Part 616 -Public Access to Records. • Facility owners | | | | | | |
| | | | | and/or operators must submit the records required to comply with the request within sixty | | | | | | |
| | | | | working days of written notification by the Department. | | | | | | |
| | | | | | | | | | | |

| B | | | FACILITY | General Provisions for State Enforceable Permit Terms and Conditions Any person who own and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person in property operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit. The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and | No indication of deviation. | Continuous | N | N/A | N/A | N/A |
|---------------|-----|--------------|----------|--|--|------------|---|-----|-----|-----|
| 8 | | | | Contaminant List Effective between the dates of 04/16/2008 and Permit Expiration Date Emissions of the following contaminants are subject to contaminant specific requirements in this permit (emission limits, control requirements or compliance monitoring conditions). CAS No: 000075-21-8 Name: ETHYLENE OXIDE | N/A | Continuous | N | NA | N/A | N/A |
| 9 | GN' | YCRR 201-1.4 | FACILITY | Unavoidable noncompliance and violations Effective between the dates of 0416/2008 and Permit Expiration Date At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-uphibutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordicepting and reporting requirements must be adhered to in such circumstances. (a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-uphibutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. It a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative. (b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a maffunction, the facility to were and/or operator shall reports to the dumination to ytelephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the mailmention occurred. Within 30 days thereafter, when r | No instances where this had to be invoked. | Continuous | N | N/A | N/A | N/A |
| 9 (continued) | | YCRR 201-1.4 | | (c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted. (d) In the event of maintenance, start-upshutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up-shutdown or malfunction condition subject to this paragraph. (e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets. | invoked. | Continuous | N | N/A | N/A | N/A |
| 10 | 6N' | YCRR 201-5 | FACILITY | Emission Unit Definition Effective between the dates of 04/16/2008 and Permit Expiration Date The facility is authorized to perform regulated processes under this permit for: Emission Unit: E-00001 E-00001 A sterilization process consisting of (3) sterilization chambers and (1) aeration room. The (3) sterilization promess are vented directly to (1) wet scrubber in series with (1) catalytic oxidizer. The aeration room is vented directly to the catalytic oxidizer. Building(s): M | No variances from requirement. | Continuous | N | N/A | N/A | N/A |

| 11 | 6NYCRR 211-2 | | compliance | Continuous | N | N/A | N/A | N/A |
|----|--------------|---|----------------|------------|---|-----|-----|-----|
| 12 | 6NYCRR 201-5 | Emission Point Definition By Emission Unit Effective between the dates of 0416/2008 and Permit Expiration Date The following emission points are included in this permit for the cited Emission Unit: Emission Unit: E-00001 Emission Point: E0001 Height (ft.): 50 Diameter (in.): 12 Building: M | No deviations. | Continuous | N | N/A | N/A | N/A |
| 13 | 6NYCRR 201-5 | Process Definition By Emission Unit Effective between the dates of 04/16/2008 and Permit Expiration Date This permit authorizes the following regulated processes for the cited Emission Unit: Emission Unit: E-00001 Process: S01 Process Description: Medical equipment sterilization that occurs in (1) of (3) sterilization chambers followed by a prescribed residence time in the aeration room. Emission Source/Control: 0CX01 - Control Control Type: CATALYTIC OXIDATION Emission Source/Control: 0CX01 - Process Dission Source/Control: 0SC01 - Process Design Capacity: 144 pounds per day Emission Source/Control: 0SC02 - Process Design Capacity: 144 pounds per day Emission Source/Control: 0SC02 - Process Design Capacity: 144 pounds per day Emission Source/Control: 0SC03 - Process Design Capacity: 72 pounds per day Emission Source/Control: 0SC03 - Process Design Capacity: 72 pounds per day | No deviations. | Continuous | И | N/A | N/A | N/A |

^{*} Type of Compliance is Continuous, Intermittent or the condition is Non Applicable (N/A) for the reporting period
*** Enter only if the condition has been modified (i.e., the numbering is 1-x, 2-y, etc)

Deviations

| Condition MOD # *** | Deviation Type ** | Deviation Begin Date (mm/dd/yyyy) | Deviation End Date (mm/dd/yyyy) | Written Notification Date (mm/dd/yyyy) | Deviation Number of occurrences | Deviation Description | Deviation Cause | Deviation Remedy |
|------------------------|----------------------|-----------------------------------|------------------------------------|--|------------------------------------|---------------------------|---------------------|----------------------------|
| | | 10/31/2019 | | Being Prepared. Occurred during Stack Testing witnessed by Department. | | Exceedence of 1ppm limit. | Under Investigation | Working with Department |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

^{**} Deviation type will be one of the following: Recordkeeping/Reporting, Emission Exceedance, Failure to Monitor Properly, Other-see Deviation Description

^{***} Enter only if the condition has been modified (i.e., the numbering is 1-x, 2-y, etc)

New York State Permit Semi-Annual Compliance Demonstration Report

| Facility NameLong Island Sterilization | DECID: <u>1473400743</u> | |
|--|--------------------------|--------------------|
| Reporting Period 7/1/19 to 12/31/19 | PERMIT NUMBER | 1-4734-00743/00006 |

Federally Enforceable Conditions

| Condition | Condition | Applicable | Permit | Synopsis of | Methods used to | Type of | Deviations | Compliance Condition | Separate Report | Separate Report |
|-----------|-----------|------------------------------|---------|--|--|--------------|------------|----------------------|-----------------|-------------------|
| Number | MOD # *** | Requirement | Level | Requirement | Determine Compliance | Compliance * | Y/N | N/A ExplanationText | Description | Date (mm/dd/yyyy) |
| 3 | WIOD# | 40CFR63.363 | E-00001 | Compliance Demonstration | Examination of records indicates | Continuous | N I/IV | N/A | N/A | N/A |
| | | (c)(1), Subpart O | | Effective between the dates of 04/02/008 and Permit Expiration Date Emission Unit; E-00001 Process: S01 Regulated Contaminant(s): CAS No: 000075-21-8 ETHYLENE OXIDE Compliance Demonstration shall include the following monitoring: Monitoring Type: MONITORING OF PROCESS OR CONTROL DEVICE PARAMETERS AS SURROGATE Monitoring Description: The catalytic oxidizer shall be operated no lower than the manufacturer's recommended minimum operating temperature. Parameter Monitored: TEMPERATURE Lower Permit Limit: 320 degrees Fahrenheit Monitoring Prequency: CONTINUOUS Averaging Method: MINIMUM - NOT TO FALL BELOW STATED VALUE - SEE MONITORING DESCRIPTION Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 64 cellender monitor). | compliance. | | | | | |
| 5 | | 40CFR63.364 | E-00001 | Compliance Demonstration | Examination of records indicates | Continuous | N. | N/A | N/A | N/A |
| 3 | | (d)(4), Subpart O | | Effective hetween the dates of 04/02/008 and Permit Expiration Date Emission Unit; E-00001 Process: S01 Emission Unit; E-00001 Process: S01 Emission Source: 0CX01 Regulated Contaminant(s): CAS No: 000075-21-8 ETHYLENE OXIDE Compliance Demonstration shall include the following monitoring: Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description: The facility shall operate and maintain a temperature monitor accurate to within ±5.6 °C (±10 °F) to measure the catalytic oxidation temperature. The temperature monitor shall be calibrated twice each calendar year with a reference temperature monitor traceable to National Institute of Standards and Technology (NIST). Monitoring Frequency: CONTINIOUS Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 6 calendar month(s). | compliance. | | * | | | |
| 6 | | 40CFR63.364 (e) Subpart O | E-00001 | Compliance Demonstration Effective hetween the dates of 04/16/2008 and Permit Expiration Date Emission Unit: E-00001 Emission Foint: E90001 Emission Source: 0CX01 Regulated Contaminant(s): CAS No: 000075-21-8 ETIVENE OXIDE COmpliance Demonstration shall include the following monitoring: Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES Monitoring Description: The facility shall measure and record once per hour the ethylene oxide concentration at the outlet to the atmosphere after any control device. The owner or operators inhall compute and record a 2-thour average daily. The owner or operator will installa, calibrate, operate, and maintain a monitor consistent with the requirements of performance specification (PS) 8 or 9 in 40 CFR part 60, appendix B Monitoring Frequency: HOURLY Averaging Method: 24 HOUR DAILY AVERAGE (ARITHMETIC MEAN) Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the reporting period. The initial report is due 7/30/2008. Subsequent reports are due every 6 calendar month(s). | Examination of records indicates compliance. | Continuous | N | N/A | N/A | N/A |

| 7 | | 40CFR63.363 | E-00001 | Compliance Demonstration | Examination of records indicates | Continuous | N | N/A | N/A | N/A |
|---|---|---------------------|---------|--|----------------------------------|------------|----|-----|-----|-----|
| | | (b)(1)(ii), Subpart | | | compliance. | | ľ. | | | |
| | | O Subpart | | Emission Unit: E-00001 Emission Point: E0001 | compnance. | | | | | |
| | | O | | Process: S01 Emission Fource: 0CX01 | | | | | | |
| | | | | Regulated Contaminant(s): | | | | | | |
| | | | | CAS No: 000075-21-8 ETHYLENE OXIDE | | | | | | |
| | | | | | | | | | | |
| | | | | Compliance Demonstration shall include the following monitoring: | | | | | | |
| | | | | Monitoring Type: MONITORING OF PROCESS OR CONTROL | | | | | | |
| | | | | DEVICE PARAMETERS AS SURROGATE | | | | | | |
| | | | | Monitoring Description: | | | | | | |
| | | | | The maximum liquor tank level in the wet scrubber shall be set by the manufacturer's | | | | | | |
| | | | | recommended operating limit and measured by an in-tank sensor. The facility shall monitor, | | | | | | |
| | | | | measure, and record the liquid level of the scrubber liquor at a minimum of once per week. | | | | | | |
| | | | | incusive, and record the inquitative of the serubber inquor are imministrate per week | | | | | | |
| | | | | Parameter Monitored: MAXIMUM TANK LEVEL Upper Permit Limit: 68 inches | | | | | | |
| | | | | Monitoring Frequency: CONTINUOUS | | | | | | |
| | | | | Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE - SEE | | | | | | |
| | | | | MONITORING DESCRIPTION | | | | | | |
| | | | | Reporting Requirements: SEMI-ANNUALLY (CALENDAR) Reports due 30 days after the | | | | | | |
| | | | | reporting period. | | | | | | |
| | | | | The initial report is due 7/30/2008. | | | | | | |
| | | | | Subsequent reports are due every 6 calendar month(s). | | | | | | |
| | | | | Subsequent reports are due every 6 caiendar montn(s). | | | | | | |
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^{*} Type of Compliance is Continuous, Intermittent or the condition is Non Applicable (N/A) for the reporting period *** Enter only if the condition has been modified (i.e., the numbering of the condition is 1-x, 2-y, etc)

State Enforceable Conditions

| Condition | Condition | Applicable | Permit | Synopsis of | Methods used to | Type of | Deviations | ComplianceCondition | Separate Report | Separate Report |
|-----------|-----------|------------------------|----------|--|-----------------------------|--------------|------------|---------------------|-----------------|-------------------|
| Number | MOD # *** | Requirement | Level | Requirement | Determine Compliance | Compliance * | Y/N | NAExplanationText | Description | Date (mm/dd/yyyy) |
| A | | 6NYCRR 201- 1.10(a) | FACILITY | Public Access to Recordkeeping for Facilities With State Facility Permits Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Facility owners and/or operators must submit the records required to comply with the request within skty working days of written notification by the Department. | N/A | Continuous | N | N/A | N/A | N/A |
| В | | 6NYCRR 201.5 | FACILITY | General Provisions for State Enforceable Permit Terms and Conditions Any person who own and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit. The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representative smust be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and | No indication of deviation. | Continuous | N | N/A | N/A | N/A |
| 8 | | ECL 19-0301 | | Contaminant List Contaminant List Emissions of the following contaminants are subject to contaminant specific requirements in this permit emission limits, control requirements or compliance monitoring conditions). CAS No: 000075-21-8 Name: ETHYLENE OXIDE | N/A | Continuous | N | N/A | N/A | N/A |

| | | , | | | | | | | | |
|---------------|---|----------------|----------|--|--|------------|----|-----|------|-----|
| 9 | | 6NYCRR 201-1.4 | FACILITY | | No instances where this had to be invoked. | Continuous | N | N/A | N/A | N/A |
| | | | | | mrowett. | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | Unavoidable noncompliance and violations Effective between the dates of 04/16/2008 and Permit Expiration Date | | | | | | |
| | | | | At the discretion of the commissioner a violation of any applicable emission standard for | | | | | | |
| | | | | necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions | | | | | | |
| | | | | or upsets may be excused if such violations are unavoidable. The following actions and | | | | | | |
| | | | | recordkeeping and reporting requirements must be adhered to in such circumstances. (a) The facility owner and/or operator shall compile and maintain records of all equipment | | | | | | |
| | | | | (a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-un/shutdown activities when they can be expected to result in an | | | | | | |
| | | | | exceedance of any applicable emission standard, and shall submit a report of such activities to | | | | | | |
| | | | | the commissioner's representative when requested to do so in writing or when so required by a | | | | | | |
| | | | | condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification | | | | | | |
| | | | | provisions for an applicable requirement, in which case they supercede those stated here. Such | | | | | | |
| | | | | reports shall describe why the violation was unavoidable and shall include the time, frequency | | | | | | |
| | | | | and duration of the maintenance and/or start-up/shutdown activities and the identification of | | | | | | |
| | | | | air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not | | | | | | |
| | | | | submit reports for equipment maintenance or start-up/shutdown for the facility to the | | | | | | |
| | | | | commissioner's representative. | | | | | | |
| | | | | (b) In the event that emissions of air contaminants in excess of any emission standard in 6 | | | | | | |
| | | | | operator shall report such malfunction by telephone to the commissioner's representative as | | | | | | |
| | | | | soon as possible during normal working hours, but in any event not later than two working days | | 1 | | | | |
| | | | | after becoming aware that the malfunction occurred. Within 30 days thereafter, when | 1 | | I | | | |
| | | | | requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction. | Ì | | l | | | |
| | | | | shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission | Ì | | l | | | |
| | | | | rates. These reporting requirements are superceded by conditions elsewhere in this permit | | | 1 | | | |
| | | | | which contain reporting and notification provisions for applicable | Ì | | l | | | |
| | | | | requirements more stringent than those above. | | | | | | |
| | | | | | Ì | | | | | |
| 9 (continued) | | 6NYCRR 201-1.4 | FACILITY | (c) The Department may also require the owner and/or operator to include in reports described | | Continuous | N | N/A | N/A | N/A |
| | | | | under (a) and (b) above an estimate of the maximum ground level concentration of each air | invoked. | | | | | |
| | | | | contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted. | | | | | | |
| | | | | (d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in | | | | | | |
| | | | | emissions exceeding any applicable emission standard, the facility owner and/or operator shall | | | | | | |
| | | | | take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as | | | | | | |
| | | | | determined by the commissioner, shall be applied during any maintenance, start-up/shutdown | | | | | | |
| | | | | or malfunction condition subject to this | | | | | | |
| | | | | paragraph. | | | | | | |
| | | | | (e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific | | | | | | |
| | | | | federal regulation must provide for an affirmative defense during start-up, shutdowns, | | | | | | |
| | | | | malfunctions or upsets. | | | | | | |
| | | | | | | | | | | |
| 10 | | 6NYCRR 201-5 | FACILITY | Emission Unit Definition Effective between | No variances from requirement. | Continuous | N | N/A | N/A | N/A |
| | | | | the dates of 04/16/2008 and Permit Expiration Date | | | 1 | | | |
| | | | | The facility is authorized to perform regulated processes under this permit for: Emission Unit: E-00001 | 1 | 1 | | | | |
| | | | | E-00001 Emission Unit Description: | 1 | 1 | | | | |
| | | | | A sterilization process consisting of (3) sterilization chambers and (1) aeration room. The (3) | 1 | 1 | | | | |
| | | | | sterilization chambers are vented directly to (1) wet scrubber in series with (1) catalytic | Ì | | l | | | |
| | | | | oxidizer. The aeration room is vented directly to the catalytic oxidizer. | Ì | | l | | | |
| | | | | Building(s): M | | | | | | |
| 11 | | ANYCOD 211 2 | FACILITY | AirNotin | Farming of a second state of | Continuous | N | N/A | NI/A | N/A |
| 11 | | 6NYCRR 211-2 | | Air pollution prohibited Effective between the dates of 04/16/2008 and Permit Expiration Date | Examination of records indicates compliance | Continuous | IN | N/A | N/A | N/A |
| | | | | No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such | | | I | | | |
| | | | | quantity, characteristic or duration which are injurious to human, plant or animal life or to | Ì | | l | | | |
| | | | | property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this | | | 1 | | | |
| | | | | prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, | Ì | | l | | | |
| | | | | pollen, toxic or deleterious emission, either | Ì | | l | | | |
| | | | | alone or in combination with others. | | | | | | |
| 12 | | 6NYCRR 201-5 | E-00001 | Emission Point Definition By Emission Unit | No deviations. | Continuous | N | N/A | N/A | N/A |
| | | | | Effective between the dates of 04/16/2008 and Permit Expiration Date | Ì | | l | | | |
| | | | | The following emission points are included in this permit for the cited Emission Unit: Emission Unit: E-00001 | Ì | | İ | | | |
| | | | | UIII: E-00001 | 1 | 1 | | | | |
| | | | | Emission Point: E0001 | | | 1 | | | |
| | | | | Height (ft.): 50 Diameter (in.): 12 | | | 1 | | | |
| | | | | Building: M | | | | | | |
| | 1 | 1 | | * | 1 | 1 | 1 | I | 1 | |

| 13 | 6NYCRR 201-5 | | No deviations. | Continuous | N | N/A | N/A | N/A |
|----|--------------|---|----------------|------------|---|-----|-----|-----|
| | | Effective between the dates of 04/16/2008 and Permit Expiration Date This permit authorizes the following regulated processes for the cited Emission Unit: | | | | | | |
| | | This permit authorizes the following regulated processes for the cited Emission Chit: | | | | | | |
| | | Emission Unit: E-00001 Process: S01 | | | | | | |
| | | Process Description: | | | | | | |
| | | Medical equipment sterilization that occurs in (1) of (3) sterilization chambers followed by a | | | | | | |
| | | prescribed residence time in the aeration room. | | | | | | |
| | | Emission Source/Control: 0CX01 - Control Control Type: CATALYTIC OXIDATION | | | | | | |
| | | Emission Source/Control: 0DS01 - Control Control Type: WET SCRUBBER | | | | | | |
| | | Emission Source/Control: 0AR01 - Process Emission Source/Control: 0SC01 - Process | | | | | | |
| | | Design Capacity: 144 pounds per day | | | | | | |
| | | Emission Source/Control: 0SC02 - Process Design Capacity: 144 pounds per day | | | | | | |
| | | Emission Source/Control: 0SC03 - Process Design Capacity: 72 pounds per day | | | | | | |
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^{*} Type of Compliance is Continuous, Intermittent or the condition is Non Applicable (N/A) for the reporting period
*** Enter only if the condition has been modified (i.e., the numbering is 1-x, 2-y, etc)

Deviations

| Condition MOD # *** | Deviation Type ** | Deviation Begin Date (mm/dd/yyyy) | Deviation End Date (mm/dd/yyyy) | Written Notification Date (mm/dd/yyyy) | Deviation Number of occurrences | Deviation Description | Deviation Cause | Deviation Remedy |
|------------------------|----------------------|-----------------------------------|------------------------------------|--|------------------------------------|--------------------------|--------------------|---------------------|
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^{**} Deviation type will be one of the following: Recordkeeping/Reporting, Emission Exceedance, Failure to Monitor Properly, Other-see Deviation Description
*** Enter only if the condition has been modified (i.e., the numbering is 1-x, 2-y, etc)



ADVANCED AIR TECHNOLOGIES, INC.

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ISO 9001: 2015 Certified

Safe-Cell II Model DR-490 Installation & Operation Instructions

Application

The AAT Safe-Cell II Model DR-490 dry reactor system is used to treat air contaminated with low to moderate ppmv levels of EtO. A single DR-490 can treat an air flow rate up to 2000 scfm.

Principal of Operation

The Safe-Cell II technology eliminates ethylene oxide emissions by a process called chemisorption (adsorption accompanied by chemical reaction). The EtO-laden air is drawn through the reactant beds using an I.D. fan. The EtO is irreversibly reacted on the surface of the reactant beads and clean air discharged from the unit. The reactant material will eventually reach its capacity for EtO destruction and need replacement.

Note: The maximum air flow through the DR-490 is 2000 cfm, and exceeding this air flow rate may cause damage to the system and void the warranty.

Equipment Specifications

This Model DR-490 has the following features:

- 1. Material of Construction − 12 Ga. 304 S.S.
- 2. Inlet Duct Connections (1) 14 in. dia. rubber sleeve
- 3. Outlet Duct Connection (1) 14 in. dia. rubber sleeve
- 4. Number of Reactant Beds (2) in parallel
- 5. Volume of Reactant Each Bed = 12 ft^3
- 6. Depth of reactant Each Bed = 6 in.
- 7. Approximate Weight of Reactant Each Bed = 450 lb.
- 8. Operating Weight of Unit = 2500 lb.
- 9. Total EtO Treatment Capacity at 99% Removal Efficiency = 250 lb.
- 10. Air flow Capacity = 2000 cfm
- 11. Pressure Drop = 6-7 in. w.g. (at 2000 scfm)
- 12. Vacuum design = 20 in. w.g.

Unpacking Crated Equipment

When unpacking this equipment, inspect it for damage that may have occurred in shipping. Check the contents of the packing skids against the packing list. Report any damage immediately to carrier. Failure to report shipping damage promptly will result in your becoming liable for repairs. If questions arise, call Advanced Air Technologies at 989-743-5544.

Note: This system is shipped with the reactant installed. It cannot be tipped to either side. It must remain vertical or the reactant will spill out. If you need to remove the reactant to install the system refer to the section, "Replacing the Safe-Cell II Reactant."

Installing the Safe-Cell II Model DR-490

Refer to the diagram below for identification of anchor lug and foundation requirements for proper installation of the unit.

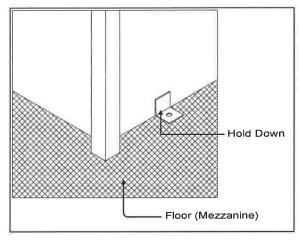


Figure 1

The Safe-Cell II Model DR-490 must be installed on a level foundation that provides firm and continuous support over the entire bottom area. The foundation must have sufficient strength to support the weight of the unit under operating conditions without any sagging or deflection. A local qualified engineer may need to be consulted on the foundation design and construction. The operating weight of the Safe-Cell DR-490 is 2500 pounds.

The support foundation can be a properly designed, reinforced concrete pad or, if elevated mounting is required, a properly designed structure with a sufficiently heavy

platform to meet the preceding requirements. All tie down lugs must be used to secure the DR-490A to its pad. The lugs must be shimmed whenever there is any space beneath them before tightening down (refer to Figure #1 above).

Locating the Safe-Cell II Model DR-490

Refer to Figure #2 when placing the unit, noting the service allowance that should be allocated. This service area is necessary to change the reactant and work on the system as needed. If you do not have this amount of room the DR-490 may have to be moved to access it.

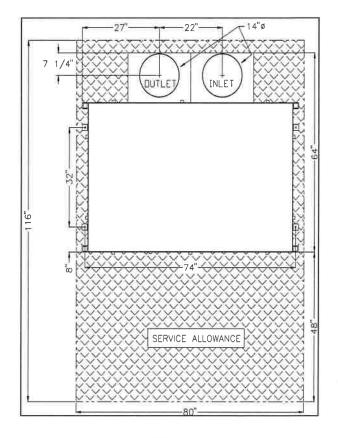


Figure 2

Locating the Exhaust Blower

When installing the exhaust blower pay close attention to the inlet and the outlet positions in order to position the blower correctly (refer to Figure 3). Note: The floor or mezzanine must be able to

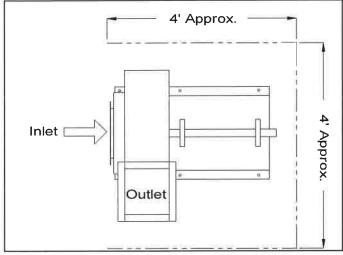


Figure 3

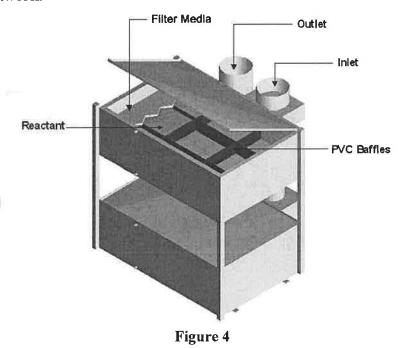
support the entire weight of the exhaust blower, which is typically in the range of 400-500 pounds.

For detailed information regarding installation of the exhaust blower, please consult the fan installation, maintenance, and operating instructions provided by the fan supplier.

Connecting the Inlet & Outlet Duct

The inlet and outlet connections on the Safe-Cell Model DR-490 are 14" diameter. Flex connectors are provided for ease of installation. Please note that all ductwork must be independently supported from the Safe-Cell. The ductwork must be capable of handling the maximum vacuum that can be generated by the exhaust fan. Refer to Figure #4 when installing and connecting to the DR-490.

Note: To prevent problems with air leakage, both the inlet and the exhaust ductwork joints need to be either welded, gasketed, caulked and /or taped. It is important that there are no leaks in the ductwork.



- 1. Identify the inlet and outlet connections on the Safe-Cell II Model DR-490.
- 2. Connect the exhaust outlet to the exhaust blower. NOTE: A damper may be installed between the DR-490 and the exhaust fan to help regulate the airflow.
- 3. Connect the inlet to the contaminated air supplies. Note: a damper will need to be installed in the inlet ductwork to isolate the unit during reactant change-out. The inlet connection to the source of EtO must be thoroughly sealed to prevent any water from entering the system, and also to prevent any contaminated air from escaping.
- 4. Run the exhaust ductwork from the blower to the desired exhaust point. Provide adequate protection to prevent rain from entering the duct, even when the blower is off. Check your local regulations for placement of this exhaust duct and also if you will need a stack. If so, stack exhaust velocity and height may also be mandated.

Leveling the Reactant Beds

After the system is in place and ductwork is connected, open the tops, remove the filter media and level the reactant beds. Make sure all divider sections are uniformly filled. It is okay if the reactant level exceeds the divider height, as long as the depth is uniform over the entire surface. When you are finished replace the filter media and press it down to the surface of the reactant tightly. Close each top and clamp them back down.

Installation & Start-Up Checklist

Before you start your system please go through this checklist.

- 1. The DR-490 is in place and lagged down.
- 2. The exhaust blower is in place and correctly connected to the exhaust ductwork and wired (being sure to comply with local codes).
- 3. The inlet & outlet on the DR-490 are connected to the ductwork.
- 4. A damper is installed between the DR-490 and the exhaust fan.
- 5. A damper is installed on the inlet side of the DR-490.
- 6. The reactant in each DR-490 bed has been leveled to the dividers.
- 7. The fan has been started and the air flow is within 5% of design.
- 8. The pressure drop across the unit is within 90% of design.

If you have met the above criteria, the system should now be ready to run.

Safe-Cell II Model DR-490 Maintenance

The following are recommendations for annual maintenance for the Safe-Cell Model DR-490.

- 1. Check all damper positions. Make sure they are in their correct positions.
- 2. Check the Safe-Cell II foam filter and make sure that it is pressed down to the surface of the reactant tightly, and free from dirt and debris.
- 3. Make sure that all of the divider sections in each reactant bed are uniformly filled with the Safe-Cell II reactant. It is okay if the reactant level exceeds the divider height, as long as the depth is uniform over the entire surface.
- 4. Inspect the cover gasket on each reactant bed for tears or rips. Also check to make sure that the gasket hasn't loosened from the DR-490.

Safe-Cell II Model DR-490 Exhaust Fan Maintenance

Refer to the fan O&M provided by the fan supplier for detailed information concerning fan maintenance and troubleshooting.

General Note: Do not attempt any maintenance on a fan unless the electrical supply has been completely disconnected and locked. In many cases, a fan can windmill despite the removal of all electrical power. The rotating assembly should be blocked securely before attempting maintenance of any kind.

The key to good maintenance is regular and systematic inspection of all fan parts. Strict adherence to an inspection schedule is essential.

Reactant Testing

We recommend the testing the exhaust air for EtO concentration to determine if the Safe-Cell II Model DR-490 reactant needs to be replaced. Test the exhaust outlet at 3-months from installation date, then at 1-month intervals, until you approach your permitted EtO exhaust limit. Record the pounds of EtO used to that point in time, and use this as the basis for scheduling future change-outs.

Replacing the Safe-Cell II Reactant

Although there are potential risks handling the reactant (see the SDS), it is no more dangerous than putting gasoline in your automobile. People have learned they must be careful with gasoline. Although the reactant is not flammable like gasoline, users must also learn to be careful. Accidents and injuries have seldom occurred in the use of our products. Help us maintain and improve this excellent record by following the recommendations outlined in the SDS located elsewhere in the O&M.

Note: Infrequent skin contact with reactant is essentially non-irritating and normally the reactant can be handled without any difficulties. Contact with abraded or injured skin can result in irritation and in extreme cases burns. Care should be taken to prevent getting reactant in the eyes. Use safety glasses or goggles. If the reactant gets in eyes, irrigate with flowing water immediately and continuously for 15 minutes and consult medical personnel. Generally, no EtO will be present in the spent reactant, however, in some cases where the systems has just been exposed to high concentrations of EtO, or if the system has been used long beyond its capacity, some residual EtO may be present. It is best to purge the Safe-Cell II System for two hours prior to opening the top cover. To do this, allow the Safe-Cell exhaust fan to run for 2 hours with no EtO in the air stream. Alternately, if your system procedures require it, you may work with a respirator or other recommended respiratory protection.

Tools: You will need a shop vac, replacement reactant, and an empty drum for spent reactant.

- 1. Turn off the Safe-Cell II fan and close the inlet and outlet dampers.
- 2. Remove the top cover by unlatching the latches. Be careful when removing the top cover as it is heavy and awkward. **Note: This is a two-man job**. Be careful not to damage the gasket.
- 3. Remove the filter media.

- 4. Scoop out the spent reactant with small bucket or scoop until most of it has been removed. Use the shop vacuum to suck up the remainder, removing all old material from the support screen. **NOTE:** Be careful not to puncture the bottom support screen.
- 5. Add new reactant up to the top of the divider and level. Make sure all divider sections are uniformly filled. It is okay if the reactant level exceeds the divider height, as long as the depth is uniform over the entire surface. Note: Both reactant beds must be evenly filled with reactant or the airflow across the beds will be uneven.
- 6. Replace the filter media and press down to the surface of the reactant tightly.
- 7. Inspect the top flange gasket and brush off any spilled reactant.
- 8. Replace the cover.
- 9. Repeat this procedure for the second reactant bed.
- 10. Cover and dispose of the spent reactant. See below for information regarding disposal.
- 11. Allow the DR-490 to run for 3 days, then check the reactant levels for settling. The reactant may need to be leveled again.

Guidelines for Proper Disposal of Safe-Cell II Reactant

The spent reactant can be readily disposed in a standard landfill. Most of our users do so. Others, who have an on-site incinerator such as some hospitals, opt to incinerate the spent material.

When the time is determined to replace reactant in the DR-490 please use the guidelines below.

- 1. Purge the unit using the exhaust fan by running clean air through it for at least 2-hours.
- 2. Shut off the exhaust fan, and lock-out / tag-out power to the motor.
- 3. Completely close isolation dampers in the two runs of inlet duct.
- 4. Attach a grounding clamp to an adequate grounding source, i.e., vacuum to drum (vacuuming dry reactant can produce static electricity, using grounding clamp will eliminate this).
- 5. Start vacuuming spent reactant into the system until the bed is 1/3 1/2 empty, at this time turn Vacuum power off, detach the drum lid, detach the grounding clamp, and wheel full drum to bulk waste container (you may desire not to fill the drum completely for easier removal). When working near the bottom of the bed use extreme caution with the end of the hose as to not the puncture the mesh screen.
- 6. Repeat Step 3 above until both beds are free of spent reactant.

Please feel free to call AAT should any questions or concerns arise.

Advanced Air Technologies wants every system to operate as designed and with the least amount of maintenance possible consistent with performance and safety. We encourage your questions and comments. We provide technical assistance for all our products as long as you own them. Please call the factory with any questions.

← BACK



ADVANCED AIR TECHNOLOGIES, INC.

300 Earl Sleeseman Drive Corunna, MI 48817 (Michigan USA) PH: 989-743-5544 FX: 989-743-5624 TF: 800-295-6583

ISO 9001: 2008 Certified

SAFE-CELL II to Include DR50 & DR490

Dry Reactant - Principle of Operation

Principle of Operation

The Safe-Cell II utilizes a proprietary technology for chemically combining Ethylene Oxide to the surfaces of a dry reactant media. This process, known as **chemisorption**, is extremely effective between Ethylene Oxide and the Safe-Cell II media (sulfonated copolymer of styrene and divinylbenzene in the hydrogen form). The Safe-Cell II consists of a bed of the tiny resin beads through which air containing Ethylene Oxide is made to flow. The Ethylene Oxide diffuses out of the air to the surface of the reactant, where it becomes rapidly and permanently chemically bonded, forming a new surface polymer. The clean air then exits the unit.

The reactant media has capacity to react with approximately 33% of its weight in Ethylene Oxide, after which the media must be changed out. Because of the irreversibility of the surface polymerization reaction, the media is not regenerable by any known common means such as desorption or soaking in acid or base.

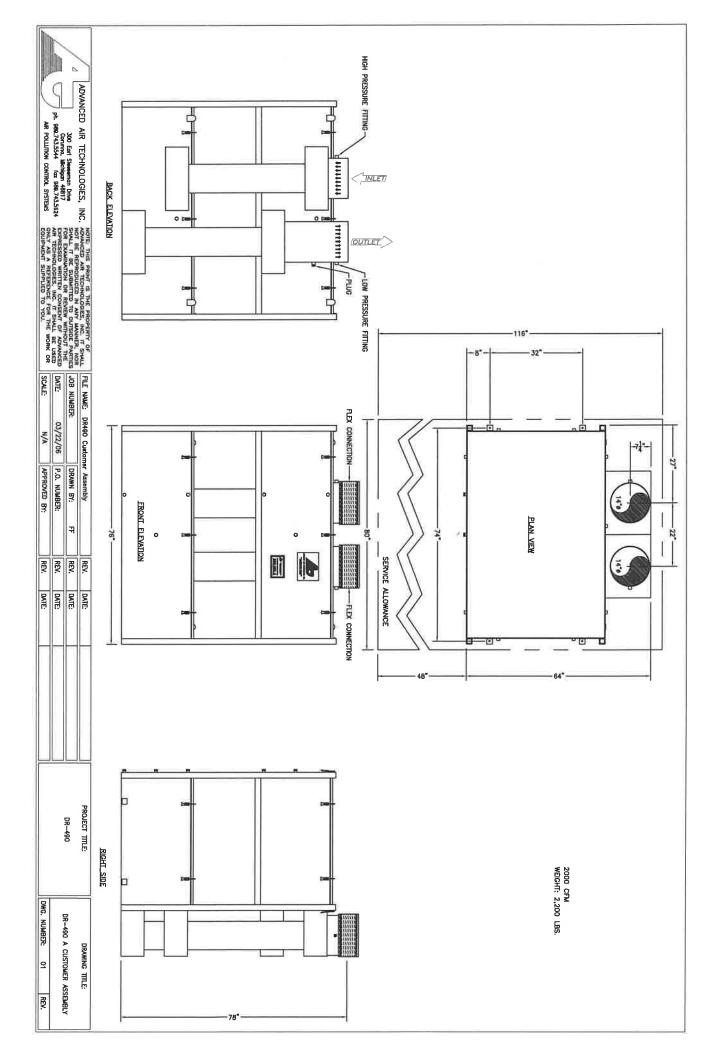
Reactant Change-Out

The spent media must be removed prior to the point of saturation and replaced with fresh media. Depending on local regulation, the spent reactant may be sent to a municipal landfill, as the EPA does not consider the spent media a hazardous waste. The listing of Ethylene Oxide in 40 CFR 261.33 (No. U115) as a hazardous waste does not apply to spent Safe-Cell reactant. This is due to the fact that the reactant is not purchased as a commercial product containing Ethylene Oxide, then discarded with all of the Ethylene Oxide unused, or with only some of it used where it's the sole active ingredient. The spent reactant, furthermore, does not exhibit any hazardous characteristic as detailed in 40 CFR 261.21-261.24, that is, ignitability, corrosiveness, reactivity, and positive TCLP results.

Submitted:

Randal Nicolli, P.E. AAT Engineering Manager October 23, 2008







MATERIAL SAFETY DATA SHEET

Issue Date: 2/28/2014

Print Date: 3/3/2014

Product Name:

AAT SafeCell-II Reactant Media

AAT encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

Product and Company Identification

Product Name:

SafeCell II Reactant Media

Company Identification:

Advanced Air Technologies, Inc.

300 Earl Sleeseman Drive Corunna, MI 48817 – USA

www.advairtech.com

Company Information Number:

989-743-5544

24 - Hour Emergency Contact:

989-743-5463

Local Emergency Contact:

989-743-5463

Hazards Identification 2.

Emergency Overview

Color:

White to yellow

Physical State: Beads

Odor:

Odorless to mild

Hazards of product: DANGER! Causes severe eye burns. Evacuate area. Slipping hazard.

OSHA Hazard Communication Standard

This is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects

Eye Contact: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Skin Contact: Prolonged exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded (scratched or cut).

Skin Absorption: No adverse effects anticipated by skin absorption. Inhalation: No adverse effects are anticipated from inhalation. Vapors are unlikely due to physical properties. For respiratory irritation and narcotic effects: No relevant data found. Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Aspiration hazard: Based on physical properties, not likely to be an aspiration hazard.

3. Composition Information

| Component | CAS# | Amount |
|--|------------|--------------------|
| -Sulfonated poylmer of styrene, ethylstyrene and divinylbenzene in the hydrogen form | 69011-20-1 | >=90.0% -<= 99.0% |
| -Water | 7732-18-5 | >= 1.0% - <= 10.0% |

4. First-aid Measures

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin Contact: Wash skin with plenty of water.

Eye Contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Suitable extinguishing media

Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

Special hazards arising from the substance or mixture

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include but not limited to: Sulfur oxides. Organic sulfonates. Hydrocarbons. Carbon monoxide. Carbon dioxide. Benzene compounds. Unusual Fire and Explosion Hazards: This material can burn.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. **Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Sweep up. Recover spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Handling

General Handling: Do not get in eyes. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Static electricity can accumulate on dry beads. Leave room for expansion as dry resin swells upon wetting and/or changing ionic form. Equipment construction material should be compatible with feed, regenerant, ionic form and effluent of the ion exchange process. Avoid generating and breathing dust. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Store in a dry place keeping container closed when not in use. Preferred storage temp. in the lower half of the range given below.

Shelf life: Use within 36 Months

Storage temperature: 0-50°C

Exposure Controls / Personal Protection 8.

Exposure Limits

None established

Personal Protection

Eye/Face Protection: Use chemical goggles.

Skin Protection: Wear clean, body-covering clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Under intended handling conditions, no respiratory protection should be needed.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

9. Physical and Chemical Properties

3.5 - 4.5

Appearance Physical State Beads

Color White to yellow Odor Odorless to mild

pН **Melting Point** Not applicable Not applicable Freezing Point **Boiling Point (760 mmHg)** Not applicable. Flash Point -Closed Cup Not applicable

Flammable Limits In Air Lower: Not applicable

Upper: Not applicable

Vapor Pressure Not applicable Vapor Density (air = 1) Not applicable Specific Gravity (H2O = 1) 1.20 -1.26 *Literature* Solubility in water (by weight) insoluble in water

Partition coefficient,

n-octanol/water (log Pow) No data available for this product.

Autoignition Temperature Not applicable

Decomposition No test data available

Temperature

Kinematic Viscosity

Explosive properties

Oxidizing properties

Not applicable

no data available

no data available

10. Stability and Reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose.

Incompatible Materials: Avoid contact with oxidizing materials. Oxidizing agents such as nitric acid attack organic exchange resins under certain conditions. Before using strong oxidizing agents, consult sources knowledgeable in handling such materials. The severity of the reaction with oxidizing materials can vary from slight degradation to an explosive reaction.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Hydrocarbons. Organic sulfonates. Sulfur oxides.

11. Toxicological Information

Acute Toxicity

Ingestion: Typical for this family of materials. LD50, rat > 5,000 mg/kg

Dermal: The dermal LD50 has not been determined.

Inhalation: As product: The LC50 has not been determined.

Eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Skin corrosion/irritation

Prolonged exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded (scratched or cut).

Sensitization

Skin No relevant data found.

Respiratory No relevant data found.

Repeated Dose Toxicity No relevant data found.

Chronic Toxicity and Carcinogenicity No relevant data found.

Developmental Toxicity No relevant data found.

Reproductive Toxicity No relevant data found.

Genetic Toxicology No relevant data found.

12. Ecological Information

Toxicity

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

Persistence and Degradability

This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

Bioaccumulative potential

Bioaccumulation: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

Mobility in soil

Mobility in soil: In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment.

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Landfill.

14. Transport Information

DOT Non-Bulk NOT REGULATED

NOT REGULATED

NOT REGULATED

NOT REGULATED

ICAO/IATA NOT REGULATED

15. Regulatory Information

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard No

Delayed (Chronic) Health Hazard No

Reactive Hazard No

Sudden Release of Pressure Hazard No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List and/or Pennsylvania Special Hazardous Substances List:

To our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CEPA -Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D2B - eye or skin irritant

Refer elsewhere in the (M)SDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian controlled Products Regulations (CPR) and the (M)SDS contains all the information required by CPR.

HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14:

COMPONENTS:

CAS#

AMOUNT (%w/w)

Sulfonated copolymer of styrene and divinylbenzene in the

069011-20-7

> 90%

16. Other Information

hydrogen form

Product Literature

Additional information on this product may be obtained by calling your sales or customer service contact.

Recommended Uses and Restrictions Identified uses

Main application(s): Reagent for EtO destruction.

Revision Most recent revision(s) are noted by the bold bars surrounding each SDS section 1 through 16.

Legend

| NA | Not available |
|--------------|--|
| W/W | Weight/Weight |
| OEL | Occupational Exposure Limit |
| STEL | Short Term Exposure Limit |
| TWA | Time Weighted Average |
| ACGIH | American Conference of Governmental Industrial Hygienists, Inc. |
| DOW IHG | Dow Industrial Hygiene Guideline |
| WEEL | Workplace Environmental Exposure Level |
| HAZ_DES | Hazard Designation |
| Action Level | A value set by OSHA that is lower than the PEL which will trigger the need for |
| Action Level | Activities such as exposure monitoring and medical surveillance if exceeded |